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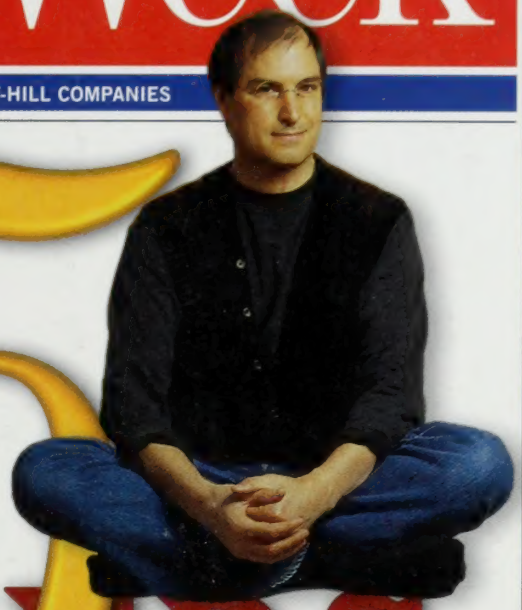
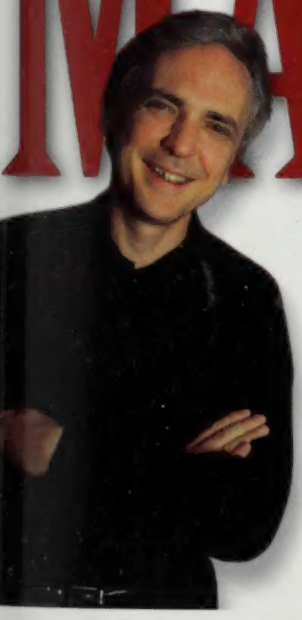
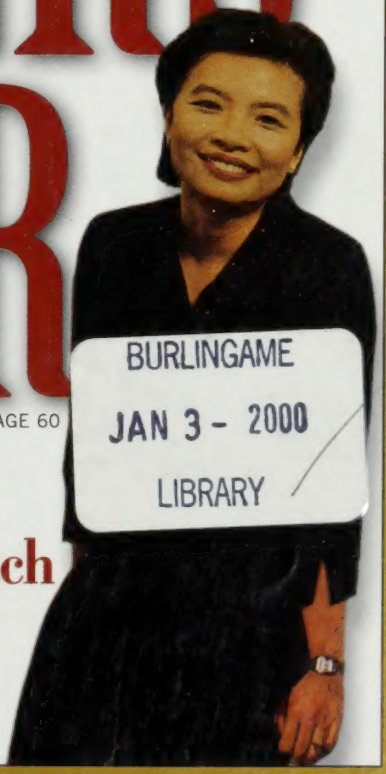
BusinessWeek

JARY 10, 2000 THE McGRAW-HILL COMPANIES

THE TOP 25 MANAGERS of the YEAR







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PLUS

Managers to Watch

The Hottest Entrepreneurs

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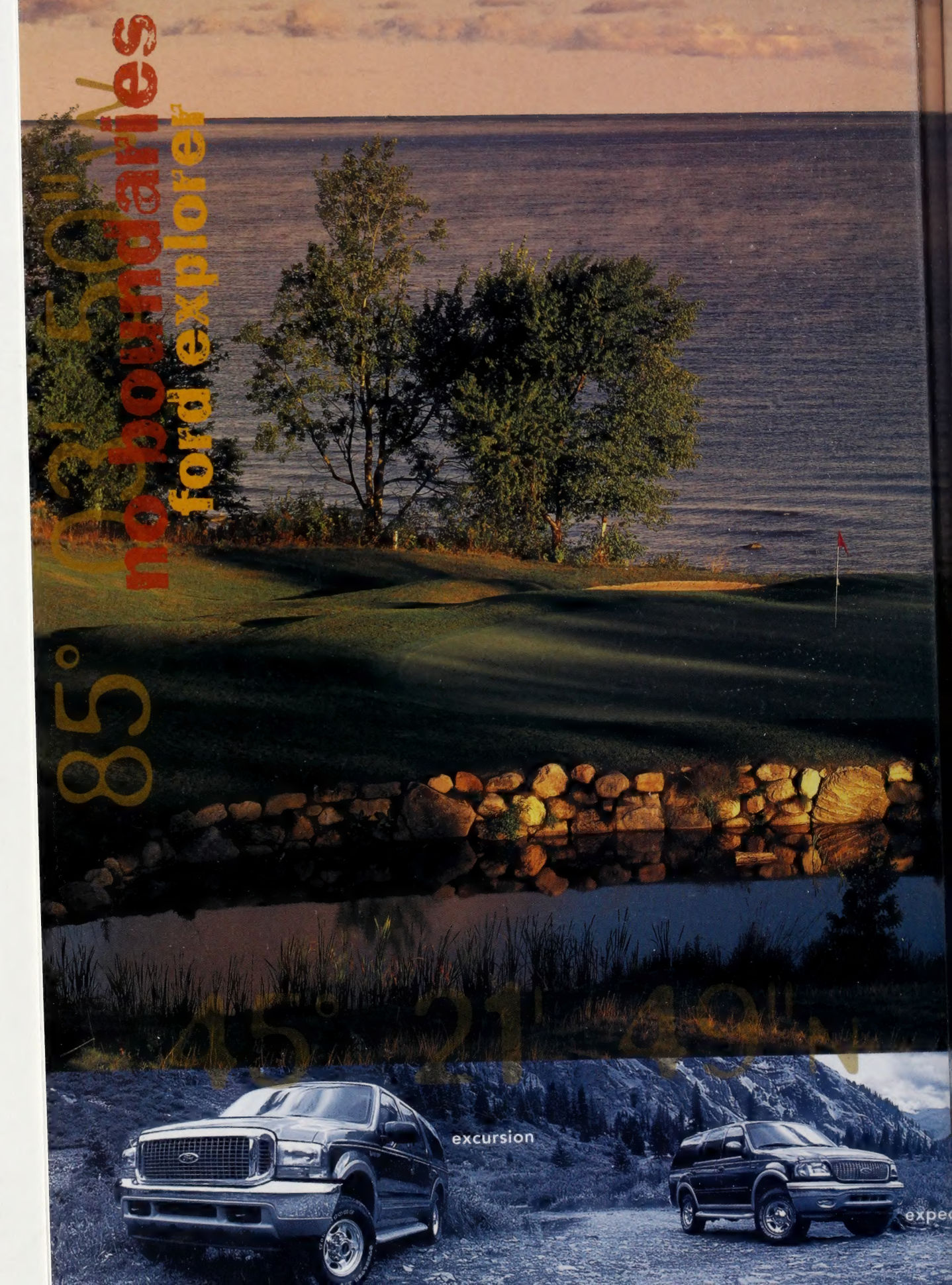
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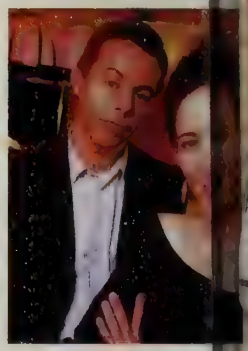
COVER STORY

THE 25 TOP MANAGERS
How do you make A-list? Some made smart calls at the speed. Some kept the ship afloat page 60



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Surprise! Some of 1999's startup stars weren't dot.com darlings page 80

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In 1999's torrid economy, looking good was a no-brainer for most executives. But which ones really pushed their companies—and stock prices—to new highs? We've picked 25 managers whose accomplishments were sterling in a year marked by hype

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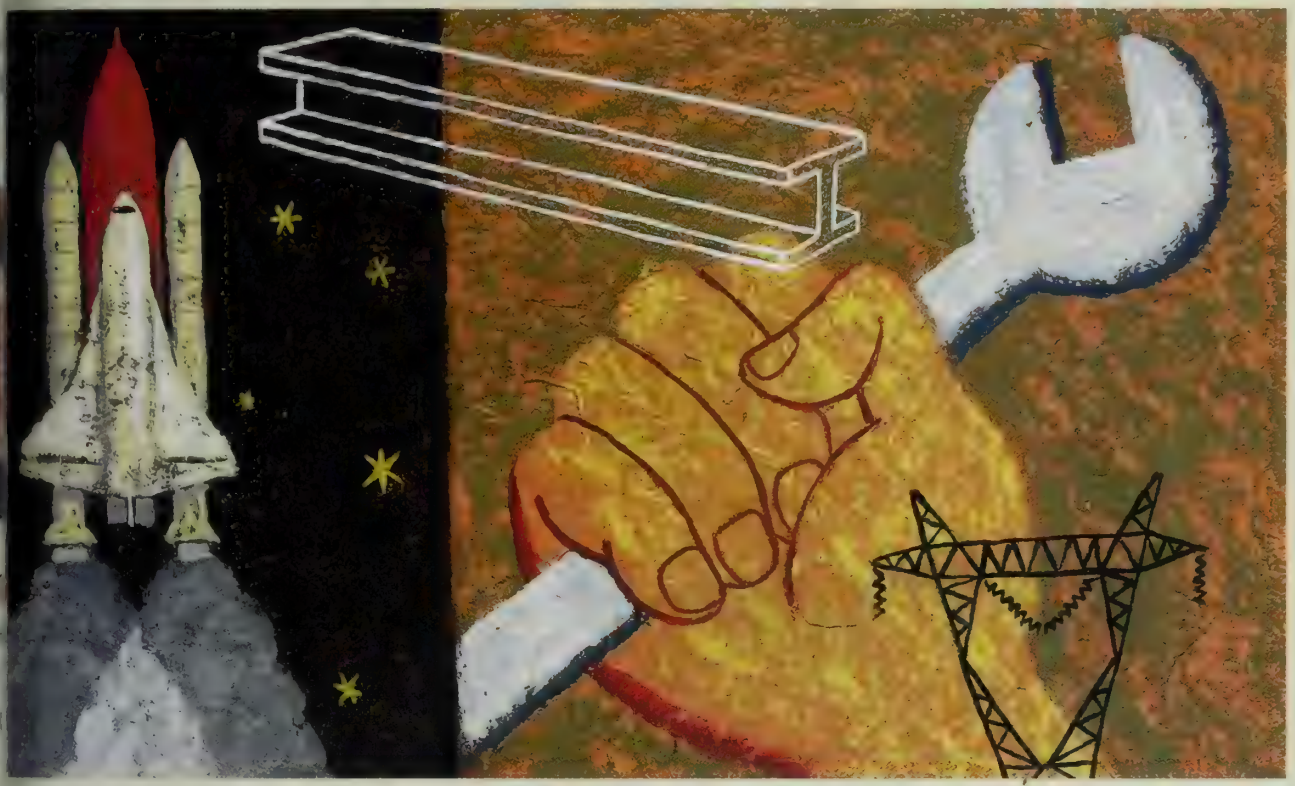
2000

NDUSTRY OUTLOOK



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PY NEW MILLENNIUM
U.S. economy looks set to keep ving at a pace that puzzles experts

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PUTERS AND CHIPS
rices will pick up, but the real focus developing non-PC Net products

TWARE
promise of e-commerce has panies retooling for the Net

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Up Front

EDITED BY ROBERT McNATT AND JOAN OLECK

LAMY: *He still has a beef*

TRADE WINDS

HAND-SLAPPING ACROSS THE WATER

THE U.S. AND EUROPE MAY BE headed for more friction on trade issues after the mess in Seattle, a.k.a. the World Trade Organization talks. Despite sparring with the Third World over labor and environmental standards, Europe will not accept the American solution of imposing sanctions against those countries. Nor will there be any bilateral transatlantic deals, says European Union Trade Commissioner Pascal Lamy, who added: "The time when the U.S. and EU could run the shop is over.... Developing countries are gaining weight."

Another reason for the increasing U.S.-Europe strains may be that the transatlantic trading partners barely get along themselves, says Lamy. For example, while the WTO authorized American hormone-fed beef, Europe prefers to pay penalties rather than allow these imports. And a similar reception can be presumed for genetically altered U.S. produce, Lamy warned, noting, "Our public is too frightened."

Lamy admits the WTO needs reform but blames President Clinton for Seattle's failure. The Democrats were nervous about upsetting labor/Green supporters, Lamy explained. So expect no new global trade round before the 2001 inauguration. *William Echikson*

THE LIST CYBEREUROPE

The first European Net audience ratings—from Britain, France, and Germany—show that U.S.-originated sites hold the lion's share of places on these countries' lists of their top 10 most visited global domains. That's key: It's predicted that by 2003, Western Europe's online traffic will match the U.S.'s.

BRITAIN		FRANCE		GERMANY	
YAHOO!	1	YAHOO!	2	YAHOO!	2
MSN	3	MICROSOFT	4	AOL	3
MICROSOFT	4	AOL	5	MICROSOFT	4
AOL	5	ALTAVISTA	8	LYCOS	5
GEOCITIES	6	MSN	9	NETSCAPE	6
AMAZON	8	GEOCITIES	10	MSN	8

October survey revealed 7.8 million online visitors in Britain, 2.3 million visitors in France, and 5.3 million users in Germany

DATA: MEDIA MATRIX INC. (MMXI) EUROPE

TALK SHOW "Vermont is not for sale, nor should Ben & Jerry's be"

—Burlington (Vt.) Mayor Peter Clavelle on the possible sale of the extraordinarily popular Vermont-based ice cream company

SUDDEN WEALTH

IN FROZEN FINLAND, MONEY TO BURN

PITY ABOUT THE POOR FINNS: Too many of them are getting rich—too many, at least, of those holding shares in high-flying mobile-phone company Nokia. When the Helsinki-based magazine *Arvopaperi* recently published a list of 9,000 Finnish Nokia millionaires, egalitarian-minded Finns recoiled in horror.

Even those on the millionaire list, ranging from already-rich banker Karl Tallberg, with $50 million in shares, to firefighter Asko Autio, with $10 million, were upset. "Many of the people on the list called or wrote me to complain," reports *Arvopaperi* editor Eljas Repo. "We Finns are quite modest people."

They'd best get over it. Not only have their riches come suddenly—Nokia's share price has nearly doubled, about $167, since Oct[illegible] multiplied by 11 in [illegible] two years—but those [illegible]aires have lots of c[illegible] Turns out the magazi[illegible] count the options [illegible] some 2,000 Nokia em[illegible] CEO Jorma Ollila, for [illegible] owns about $100 milli[illegible]tions. Add in the fact [illegible]eigners hold 80% o[illegible]

stock. As a spokesma[illegible] "There must be a [illegible] American Nokia milli[illegible] too." Lucky they're no[illegible] Finland's 60% perso[illegible] rate. *William E[illegible]*

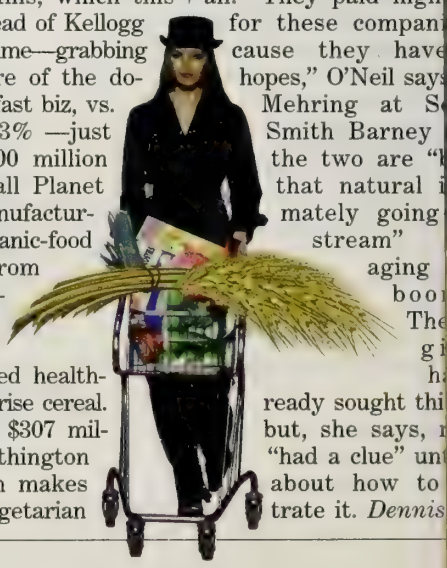
FOODSTUFFS

GRANOLA HITS THE BIG TIME

IN THAT BELLICOSE MARKET known as breakfast, Kellogg and General Mills are vying, oddly enough, for the laid-back natural-foods crowd.

General Mills, which this fall nosed ahead of Kellogg for the first time—grabbing a 31.8% share of the domestic breakfast biz, vs. Kellogg's 31.3% —just signed a $100 million deal for Small Planet Foods, a manufacturer of 200 organic-food products, from salsa to sorbet. General Mills has also introduced health-conscious Sunrise cereal. Kellogg paid $307 million for Worthington Foods, which makes soy-based vegetarian items, and will debut [illegible] soy cereal.

So is this strateg[illegible] healthy? PaineWebb[illegible]lyst John O'Neil sa[illegible] natural/organic marke[illegible]tractive because of i[illegible] to 25% annual growt[illegible] compared with 1% [illegible] for the food industry [illegible] all. "They paid high[illegible] for these compani[illegible] cause they have [illegible] hopes," O'Neil says [illegible] Mehring at S[illegible] Smith Barney [illegible] the two are "[illegible] that natural i[illegible]mately going [illegible] stream" [illegible]aging [illegible] boo[illegible] The [illegible] g[illegible] h[illegible] ready sought thi[illegible] but, she says, [illegible] "had a clue" un[illegible] about how to [illegible]trate it. *Dennis[illegible]*



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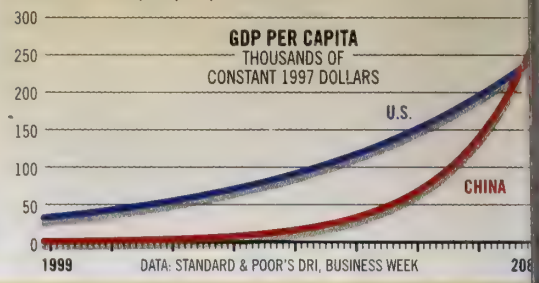
MUSING OVER THE MILLENNIUM

THE U.S. CENSUS BUREAU projects that there will be 275 million Americans when the national headcount is completed next year. Of course, until the census-takers are done, it's only a guess. But human enterprise demands a reasonable guess about the future. So here are some projections whose implications, perhaps, haven't crossed your mind: data about child-raising, land use, the labor force, and the economy. Will any of these forecasts pan out? Stick around and see. □

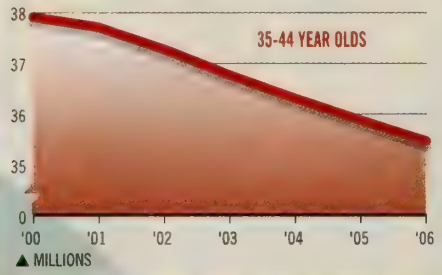
CHINA'S LEAP FORWARD

The average Chinese citizen may eventually be richer tha the average American. From 1994 to 1999, gross domesti product per capita grew 7.5% a year in China, vs. 2.6% i the U.S. If those growth rates persist, China will surpass the U.S. in output per person in 2078.



THE SHRINKING WORKFORCE

Employees are already scrambling for managerial and professional talent. Demographic trends will make finding mid-career employees even tougher. Look for a 6.5% decrease in the population of 35-to-44-year-olds between 2000 and 2006.



COMING TO AMERICA

Many newcomers will continue to arrive from As and Latin America. By 2025, California, the lead immigrant destination, is projected to be home more than one-third of the nation's new arrivals Immigration quotas are fixed by Congress. These projections also include undocumented aliens.

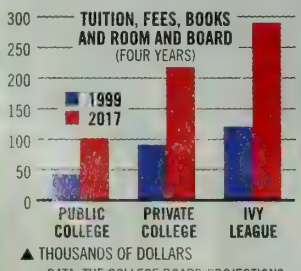
STATES WITH THE LARGEST PROJECTED NET INCREASE IN IMMIGRANTS, 1995 TO 2025

STATE	THOUSANDS		THOUSAND
1. CALIFORNIA	8,725	6. TEXAS	1,00
2. NEW YORK	3,886	7. MASSACHUSETTS	83
3. FLORIDA	1,856	8. VIRGINIA	60
4. NEW JERSEY	1,201	9. MARYLAND	59
5. ILLINOIS	1,037	10. PENNSYLVANIA	40

DATA: CENSUS BUREAU

PROJECTED COSTS TO EDUCATE A Y2K BABY

The earnings gap between young people with college degrees and those without is growing, because of the employment world's growing emphasis on intellectual and technical skills. Assuming that college costs rise 5% annually, a child born today can expect to shell out more than $250,000 for an Ivy League sheepskin.

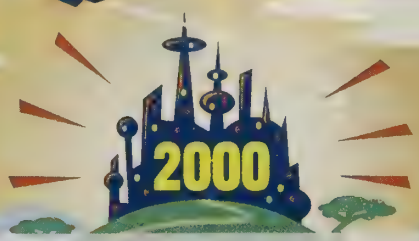


THE COSTS OF RAISING A 21st CENTURY CHILD

What do Americans think it will take to keep a millennial baby in diapers, day care, clothing, food, and education up to the age of 17? For a baby born at the turn of the century, a lot, that's what. A conservative government estimate pegs the cost at $262,000.

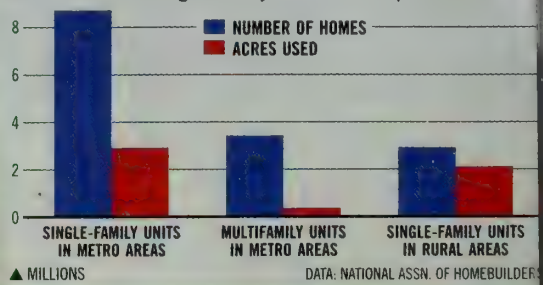
26% OF NATIONWIDE SURVEY RESPONDENTS (AUG. 1999)	$100,000 OR LESS
NATIONWIDE SURVEY AVERAGE	$585,000
5% OF NATIONWIDE SURVEY RESPONDENTS	MORE THAN $100,000
U.S. AGRICULTURE DEPT. ESTIMATE	$262,000

DATA: NATIONWIDE FINANCIAL SERVICES



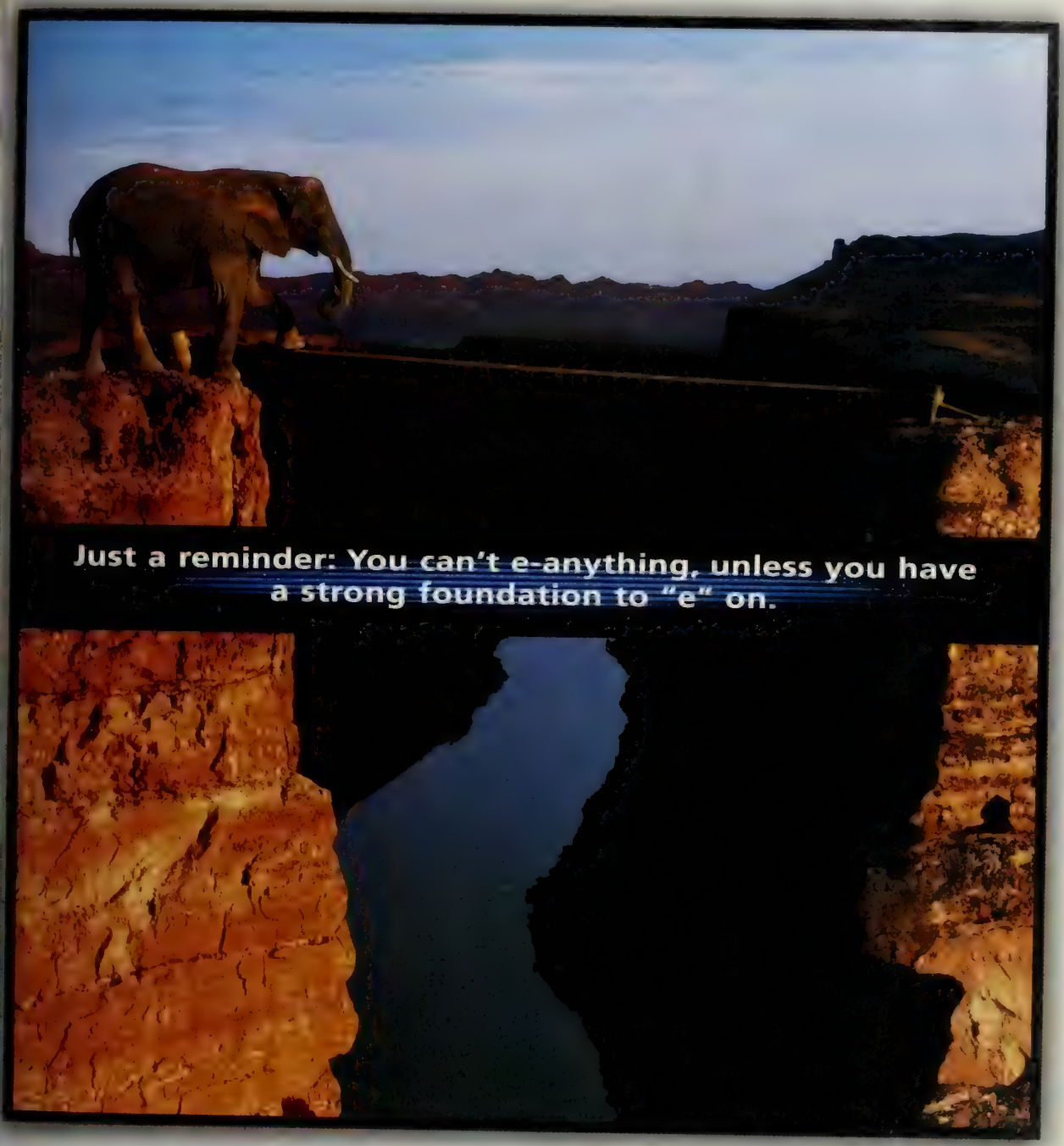
NEW HOME STARTS, 2000-09

Developers are seeking a solution to surburban sprawl with clustered housing that builds homes on smaller lots closer to cities. More in-town living is also forecast. In metro area of more than 50,000 people, about 3 million acres of land will be used for single-family houses and apartments.



FOOTNOTES The person 600 top CEOs say is their "greatest inspiration": Mom: 34%; Viacom Chairman Sumner Redstone:

DATA: DOREMUS ADVE



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SEATTLE WAS UGLY IN MORE WAYS THAN ONE

Although I agree with the major points of "Global growing pains" (News: Analysis & Commentary, Dec. 13), I have to take exception to the notion that "the scene turned ugly when protesters determined to close down the summit clashed with police." The scene turned ugly when the police attacked peaceful demonstrators, most of whom were there to protest, and not close down, the WTO conference.

I believe the WTO can be reformed, but I headed downtown to stand against the police when they crossed the line. If the tactics used by the Seattle police are deemed acceptable (and the major media plays a vital role in making them so), then those who yelled "police state" have a point, and we all have something to fear.

Andrew Faber
Seattle

I may not be an environmentalist, but I was a little surprised at "The lessons of Seattle" (Editorials, Dec. 13). The author seems to believe that simply keeping things "clean" meets the standard for good environmental stewardship. Environmental responsibility means much more than cleaning up after you have used what you want from the natural resources; for many, it means preserving the environment in its present st

This demonstrates the real probl our misunderstanding, poor commun tion, and lack of interest in one anoth positions. I see some of the ill effect the global economy here in Minnes When my local river is fouled with sediments, and pesticides so that a thousand farmers in the Valley can g soybeans for customers in Asia, I the results of the global economy fi hand. When the size of my state's fo land diminishes each year because clear-cut logging to feed the hundr of mills sending paper, 2x4s, and fu ture around the world, the very la scape, culture, and enjoyment I g from living here changes because of global economy.

Gene Kallig
Minneap

The notion that World Trade Orga zation protesters are "anti-trade" is s by corporate think tanks trying to m ginalize a well-informed internatio movement. The American people und stood the protests, and the more th learn about the WTO, the less they like No wonder rulings are made in sec The WTO, acting on behalf of multi tional corporations, has empowered self to trump any national or local en ronmental, health, safety, or la standard if it affects profits.

Having no other voice, tens of th

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ORRECTIONS & CLARIFICATIONS

cause of a data error at Morningstar Inc., nus Global Technology Fund was omitted m the best-performers table in "The won-rful world of wonderfunds" ("Where to in-st," Cover Story, Dec. 27-Jan. 3). The Janus nd had a year-to-date return of 177.7%. at brings to 79 the number of funds with urns greater than 100%.

me lines were inadvertently dropped from hort and sweet? It can be done" (Cover ory, Dec. 27-Jan. 3). The sentence on ge 106 should have read: "But shorts lieve the company [Log on America], ough still below the high of $37 a share at it reached in April, will eventually mp further. 'It's a small Internet ser-e provider trading at 100 times rev-ues,' says one short."

ds hit the streets in Seattle with fel-citizens from around the world. Per-s we can create a system that pro-s workers, children, and the ironment as vigorously as it does in-ctual-property rights.

Brian Smith
San Francisco

GE STILL AMERICAN COMPANY?

hank you for running "Welch's march he south" (The Workplace, Dec. 6) E's aggressive exporting of U.S. jobs same week the WTO was meeting in ttle. It helped to focus the issue.

When an old-line company like GE not sends its own jobs overseas but aggressively pressures its suppliers o the same, it is clear that Ross Per-Pat Buchanan, and the labor unions e a point. If the jobs being lost were e-collar rather than blue-collar, it is a bet that there would be a greater lic outcry and media frenzy.

E's actions also raise the fundamental l disturbing) question of what is an erican company. If corporate profits trump any sense of community or onal allegiance, the pride many ericans still feel for "our" private sec-will be short-lived. While the mantra ree trade may work during good es, American business will pay a vy price in terms of political support ng the next (inevitable) downturn.

John K. Dirlam Jr.
Wellesley Hills, Mass.

TLE MUFFY OULD DO WITHOUT

The pampered pet" (Lifestyle, Dec. 6) vokes a strong reaction—first disbe-lief, and then disgust. Because I trust your accuracy, I now believe that there really are people buying $500 beaver and leather coats from Chic Doggie and $950 woven leather beds for their pets. In most of the world, a person can work hard all year and still earn less than the cost of such items, and their children sleep on floor mats. It is disgusting that there is such a waste of resources on animals at the same time that an estimated 24,000 people die from hunger each day. Perhaps your article should be included in some of the many time capsules being prepared for the millennium, so our descendants can see how strange were our values.

Joseph Enright
Bronx, N.Y.

TWA: SILENCE IS GOLDEN

Regarding "Long odds on a short-haul jet" (The Corporation, Dec. 13): Commenting on marketing competition between the Boeing 717 and the Airbus

"This is no sand trap, Bob. But speaking of golf, I hear that the Tiger Woods Foundation and Williams are putting on a golf tournament to benefit kids."

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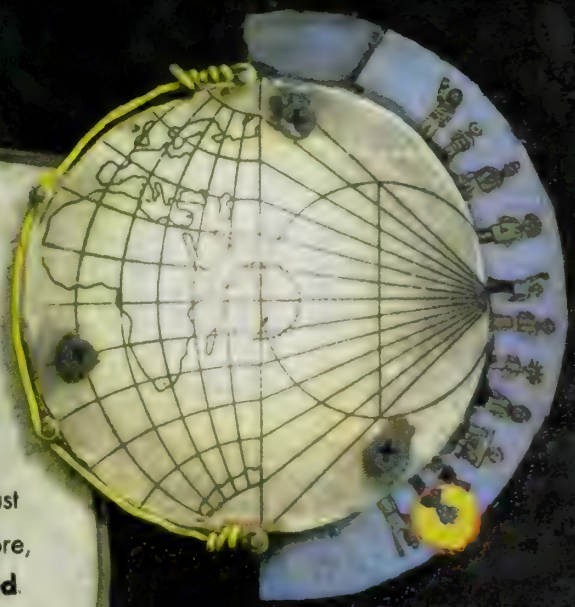

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A318, it was reported that "carriers such as TWA and British Airways PLC say Airbus is successfully undercutting Boeing" on price. TWA made no such comment to BUSINESS WEEK. The article further stated that "the lower price was one reason TWA split its order." Again, TWA made no such comment. TWA has not disclosed financial terms either for our 717 order or our A318 order, and we have no intention of doing so.

The article implies that TWA is somehow dissatisfied with the 717 and that this is why we ordered the A318. Not so. We ordered both aircraft because we like both, and we see a role for each model in our fleet. Also, the article identifies Bill Compton, our president and CEO, as a former airline pilot. He is an active airline pilot (MD80 captain) who flies the line for TWA on a regular basis.

Mark E. Abels
Vice-President
Corporate Communications
Trans World Airlines Inc.
St. Louis

Editor's note: BUSINESS WEEK misunderstood Abels' comments about the economics of the Boeing 717 and the Airbus A318 and inaccurately attributed the article's conclusions about their price differential to Abels.

LEAVE ALL THAT NET HYPE TO THE AD AGENCIES

After more than 20 years of reading BUSINESS WEEK, I have never seen your magazine go as overboard as you did in "The Net is a family affair" (Net Culture, Business Week e.biz, Dec. 13). "The family that clicks together sticks together"—come on! This kind of stuff should be left to the neoscientists who write for futuristic magazines and sci-fi. "'E-mail has made it easier...to say 'I love you,' says a mother with a son in Hong Kong." Please try some antacid at once. You do acknowledge in one paragraph out of many that "there is a dark side," but quickly rebound to say that the Net is proving to be "more balm than bane." Isn't it enough that you extol the computer in every issue for all kinds of business reasons? Do you have to add this kind of mushy sociological/psychological hype?

How about some data on the number of broken families—divorce, etc.—that have been exacerbated if not caused by the Net? Or the fraudulent offers and scam artists who now have n weapon to use in their scams? D turn back the clock—just turn o the hype.

Leo
Phila

WHY JOHNNY'S TEACHERS CAN'T TEACH

"Why Johnny may learn to ad ence & Technology, Dec. 13) referr "new" way of teaching. This w been around since the 1960s, a search provides conclusive eviden it is superior to traditional metho regrettable that individuals in the branches and levels of governme anchor their educational beliefs on discipline and behavioristic psyc Until the government and othe earth citizens are able to reject t tion that the way they learned wa educational improvement will be d to attain.

Frank Tho
Milledgevil

America has to be careful with plementation of "inquiry-based" matical learning. I have no idea w

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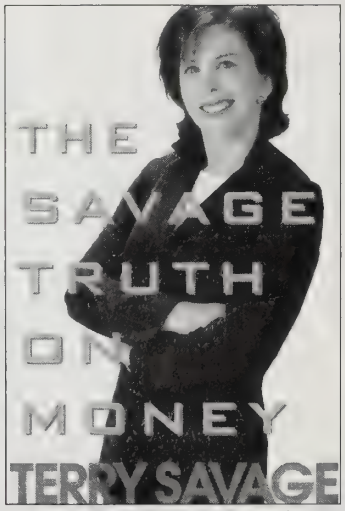

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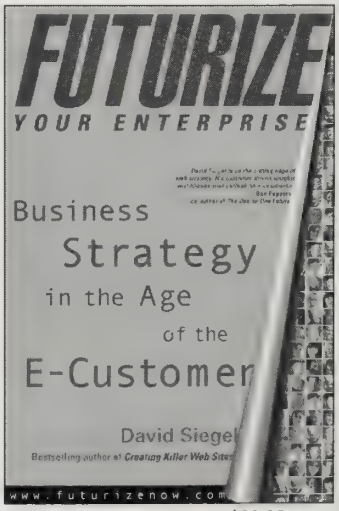

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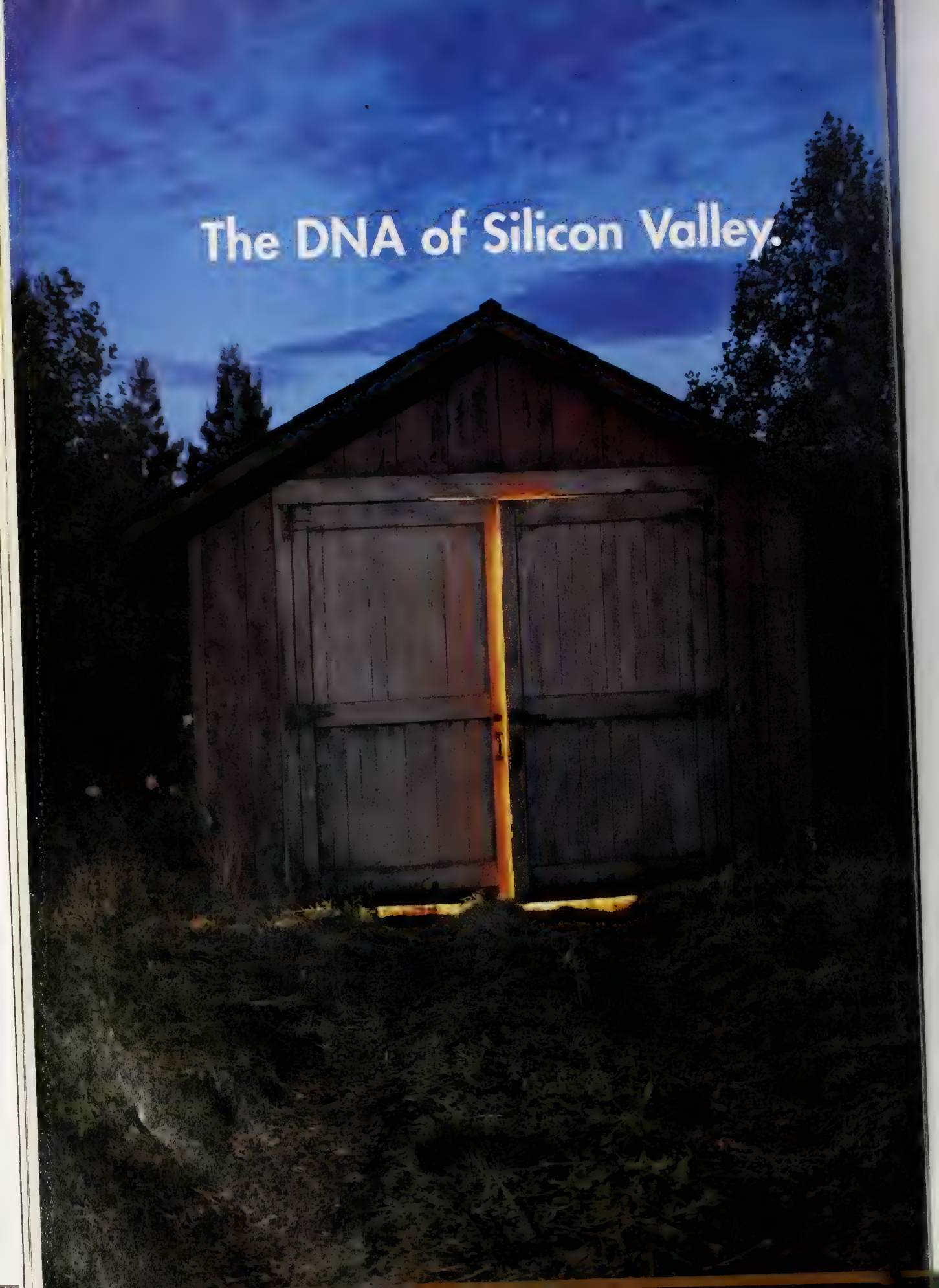
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Who should use the NICOTROL® Inhaler? *Patients with these conditions should consult their doctor before using this product:* • heart problems (recent heart attack, irregular heartbeat, severe or worsening heart pain) • stomach ulcers • overactive thyroid • high blood pressure • allergies to drugs • diabetes requiring insulin • kidney or liver disease • wheezing or asthma • accelerated hypertension

How does the NICOTROL® Inhaler Work? As you inhale or puff through the mouthpiece, nicotine turns into a vapor and is absorbed into your mouth and throat.

How should I use the NICOTROL® Inhaler? Use the NICOTROL® Inhaler longer and more often at first to help control cigarette cravings. Less nicotine per puff is released when you use the Inhaler versus a cigarette. Try different schedules to help control cravings. Puffing on the Inhaler for 5 minutes at a time will give you enough nicotine for 4 uses. Nicotine in cartridges is used up after about 20 minutes of active puffing. In a few days you'll find what works best and know when nicotine in the cartridges is used up. Your doctor may adjust the number of Inhaler cartridges during the first few weeks. As your body adjusts to not smoking, your doctor will either tell you to stop using the Inhaler or slowly reduce the dose. Do not use more than 16 cartridges each day unless directed to do so by your doctor.

When should I stop smoking? Stop smoking as soon as you start using the NICOTROL® Inhaler.

How long should I use the NICOTROL® Inhaler? Do not use the NICOTROL® Inhaler longer than 6 months.

Can I smoke while using the NICOTROL® Inhaler? Do not smoke or use any other tobacco products, or other products containing nicotine, at any time while using the NICOTROL® Inhaler.

What else do I need to discuss with my doctor? Tell your doctor about any medicines you are taking – the dosages may need to be changed. Check with your doctor before taking any new medicine while using the NICOTROL® Inhaler.

Are there special concerns for women? Do not use if you are pregnant (or think you may be pregnant) or nursing unless your doctor tells you to do so. Nicotine in any form can cause harm to your unborn baby. Only you and your doctor can decide if the benefits of using the NICOTROL® Inhaler to stop smoking outweigh the risk of using this medicine.

What are the possible side effects of the NICOTROL® Inhaler? Like all prescription drugs, the NICOTROL® Inhaler may cause side effects. Many people experience mild irritation of the mouth or throat, and cough when they first use the NICOTROL® Inhaler. Stomach upset may occur. In clinical studies, the frequency of cough, mouth or throat irritation declined with continued use of the NICOTROL® Inhaler.

Is there a chance I could become addicted to the NICOTROL® Inhaler? Nicotine from any source can be toxic and addictive. Dependence might occur from transference of tobacco-related nicotine dependence to the NICOTROL® Inhaler.

Can a nicotine overdose occur with the NICOTROL® Inhaler? Nicotine overdose can occur. If symptoms of overdose occur, call a doctor or Poison Control Center immediately. Overdose symptoms include: bad headaches, dizziness, upset stomach, drooling, vomiting, diarrhea, cold sweat, blurred vision, hearing difficulties, mental confusion, weakness and fainting.

How should I store the NICOTROL® Inhaler? When not in use always store mouthpiece and cartridges in plastic case, out of reach of children and pets. Store cartridges at room temperature, not to exceed 86°F. If you keep cartridges in the car, be careful, interiors heat up quickly. Protect from light. Clean mouthpiece regularly with soap and water. Keep the NICOTROL® Inhaler out of reach of children and pets. This product is not child-resistant. The NICOTROL® Inhaler can cause serious illness in children and pets – even in very small amounts. If a child chews on or swallows NICOTROL® Inhaler cartridges, call a doctor or Poison Control Center. After a cartridge is used, throw away out of reach of children and pets. Even used cartridges contain enough nicotine to seriously harm children and pets. The Patient Information leaflet provides a summary of information about the NICOTROL® Inhaler. If you have any questions or concerns about either the NICOTROL® Inhaler or smoking cessation, talk to your doctor. In addition, talk to your pharmacist or other health-care provider.

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Readers Report

it is true that suburban schools are thriving on this new way of teaching math. What is clear to me is that "hands-on," "inquiry-based," "learning-by-doing" educational methods are a disaster in the inner city.

At the South Bronx elementary school where I teach, my students have been learning according to these techniques since kindergarten. When they entered my classroom this September, perhaps two or three children out of a class of 28 could have told me what 5 times 4 was (only through traditional, back-to-basics drilling are they finally learning their times tables). They still made mistakes in basic addition and subtraction, and they showed virtually no understanding of division, fractions, or basic measurements.

These new approaches to teaching math assume children possess knowledge that they may never have acquired. Unless students can practice a concept for extended periods of time, they won't internalize it adequately and certainly won't retain it for long. There may be a reason those traditional math and reading teaching methods have been around for so long. The old ways tend to work, and I would give anything to be allowed to teach them again.

Matthew Clavel
New York

TECHIE COACHES START SETTING STANDARDS

Regarding "Tough love for techie souls" (Working Life, Nov. 29): Coaching has become a legitimate industry, clearly established as a self-regulating profession. Last year, the International Coach Federation established a set of competencies for the qualification of professional coaches and coach-training agencies. They then implemented a rigid certification program and an accreditation program to identify quality coach -training programs. At minimum, to become ICF-certified, coaches must successfully complete a specified program of coach training of at least 125 classroom hours and accumulate at least 750 direct client-coaching hours.

While author Michelle Conlin asserts that "a lot of coaching in the industry focuses on how to use a day planner more effectively," a survey we conducted last month indicated that corporations using coaching are seeing not only improvements in individuals' performances but also increased profits, customer satisfaction, and retention of employees. Additionally, employees report more self-confidence, stronger skills, more goals achieved, and bette r tionships as a result of coaching.

Marcia Re
Pr
International Coach Fed
Angel Fire N

A HOLE IN THE GLASS CEILING?

While I am pleased that BU WEEK dedicated significant space sources to women-related issues, disappointed to see my quote tak of context in "The CEO still wingtips" (Working Life, Nov. 22)

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GERMANY, INC.
The New German Juggernaut and Its Challenge to World Business
By Werner Meyer-Larsen
Wiley • 244pp • $27.50

THIS SHOW OF MUSCLE ISN'T SO SCARY

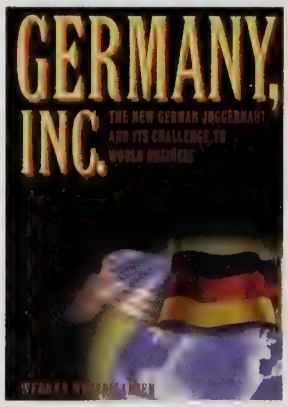
It's no secret that German companies are expanding abroad. But what, exactly, are they up to? Is this another grab at world domination—as the British tabloids would have it—or a matter of survival against global rivals? The question is timely. Deals such as DaimlerChrysler, Deutsche Bank-Bankers Trust, and Bertelsmann-Random House are early examples of the transatlantic alliances that will shape global business in coming decades. Germany is set to play a key role in the new capitalist order.

Germany, Inc. is a worthy attempt to explain what's driving German corporations and their leaders. Author Werner Meyer-Larsen's choice of title is a bit ironic, though. The phrase "Germany Inc." is usually used to refer to the cozy alliance of business, government, and labor that has ruled the German economy since the end of World War II. In fact, that alliance is disbanding, rendered obsolete in a world where borders are losing their economic relevance.

Germany Inc.'s members won't disappear, though. On the contrary, most of the companies profiled by Meyer-Larsen are already more than a century old. They've shown remarkable staying power in the face of huge setbacks. The great service of this book is its insight into where these companies came from and what accounts for their strength.

Take Deutsche Bank, the institution that best typifies Germany Inc. It turns out that the bank's current thrust into investment banking is more a return to its roots at the end of the 1800s, when it provided the venture capital to build German industry and make the newly united nation a world power. Back then, the bank took huge risks, including financing railroads in faraway places such as Anatolia and even the U. S.

But the spirit of adventure and innovation was crushed by the world wars. Devastated spiritually and physically, many of Germany's big companies became defensive and risk-averse. In postwar Germany, they created webs of cross-holdings and reciprocal board memberships. The incestuous system functioned well during the cold war. But it couldn't cope with the global competition that accelerated after the 1989 fall of the Berlin Wall and, more recently, the introduction of the euro. Stifled by taxes, high wages, and rigid work rules in their home country, German companies responded by pushing abroad.



Meyer-Larsen, a former U. S. correspondent for the news magazine *Der Spiegel*, excels when profiling Germany's corporate leaders. His descriptions will surprise even those who think they know corporate Germany pretty well. A veteran of *Der Spiegel*, a sort of thinking man's tabloid, Meyer-Larsen sizes up these men with a critical eye and sarcastic wit.

For example, he characterizes Bertelsmann CEO Thomas Middelhoff as a "Mr. Spock," who, besotted by logic and technology, is morphing the former publisher of religious books into an Internet company. Moreover, the author punctures some myths about Daimler-Chrysler's Jürgen E. Schrempp, the closest thing Germany has to a business hero. As Meyer-Larsen tells it, Schrempp only reluctantly gave up a luxurious life, working on assignment for Daimler-Benz in South Africa. Posted to the U. S. in 1982, his job was to turn around Euclid Inc., a maker of heavy commercial vehicles recently purchased by Daimler-Benz. Schrempp's solution was simply to sell the company. Back in Germany, Schrempp presided over massive losses at Daimler's aerospace business and was responsib the disastrous acquisition of Dutch maker Fokker in 1992. In 1995, F was the chief cause of Daimler's lion loss for the year. Meyer-L gives credit for Daimler's survival ly to car chief Helmut Werner, wh forced out by Schrempp.

For those worried about a rebi German aggression, a closer look business leaders is reassuring. D the "juggernaut" promised by the title, Germany's business elites across more like a bunch of Am wannabes, showing off their En being envious of the unfettered ca ism enjoyed by U. S. companies embracing U. S. business articles o such as shareholder value. Midd even calls himself an "American by sheer coincidence has a Ge passport." He spends half his ti New York.

Seen in that light, Germany's abroad seems more an attempt t brace America than co it. Its companies ofte chew their German and install foreign agers. Big companies as Industrial giant Th Krupp are shedding tional businesses su steel and instead bui up such U. S. operatio auto parts maker Bud It's probably only a m of time before a blue company such as Dai Chrysler relocates its utive offices to the U. S.

Germany Inc. is giving way to Inc. But how will a reoriented corp Germany look in the years ahead? er-Larsen's main weakness is tha never makes any firm predictions. in the mode of *Der Spiegel*, at t the evidence for his characterizatio a bit thin. The book's nine-page chapter does an inadequate job of ming up almost 200 pages of com and CEO profiles. Readers must their own conclusions. Read as his though, the book is an informed entertaining portrait of the institu and people who run the world's t largest economy.

BY JACK E

Ewing is BUSINESS WEEK's Fran bureau chief.

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BY STEPHEN H. WILDSTROM

ON THE WEB, IT'S 1984

E-commerce could wither if snooping doesn't stop

Comet Cursor is a little downloadable program that lets you replace the dull old Windows arrow cursor with an image of Kenny from *South Park* or other cartoon characters. But until privacy advocates put out the word in late November, Comet users had no way of knowing that Kenny, who usually mumbles incomprehensibly, turns into a chatterbox on your system, reporting back to Comet Systems Inc. (www.cometsystems.com) on what Web sites you visited and what you did while there.

Comet is hardly the only offender in an assault on Web surfers' sense of privacy. In late October, an embarrassed RealNetworks issued a fix that stopped its RealJukebox MP3 music player from surreptitiously sending back reports on the selections users had downloaded from the Web. And many America Online Inc. customers who had changed settings to stop annoying offers of credit cards and online photo services discovered that the pop-up windows had mysteriously come back.

Privacy and security concerns have been around since the Internet became a mass medium. At first, the major worry was about the theft of credit-card information, but this has faded because there have been hardly any reports of problems. On the other hand, privacy issues seem to be getting more serious as Web site operators find ever more sophisticated ways to track their visitors' activities.

Consumers have helped bring this assault upon themselves with their dogged insistence that all information and services on the Web should be free. Deprived of the ability to make money the old-fashioned way, dot.coms, many of which give away all of their services, seek ways to "monetize their visitors." That's Netspeak for selling information gathered at Web sites and for delivering customers to online merchants who will kick back a portion of the proceeds.

There are no U. S. laws or regulations governing the uses of information collected from adults on Web sites, whether by asking visitors for personal information, by tracking what people do at the site, or even by planting a snooping module in downloaded software. And while you can always refuse to give information that identifies you on any Web site, there's nothing you can do to stop the owner from collecting the "clickstream" of all your actions on the site.

OPTING OUT. The idea that someone is watching and taking notes on everything I do gives me the creeps, even if there is no personally identifying information attached. And the idea that an innocent-looking piece of software might be sending back regular reports on my activities is Orwellian.

Neither Web site privacy policies nor outside watchdogs offer people much protection. Comet has a strong policy statement that promises not to give information to outside parties without permission—but it fails to men- tion Comet Cursor's s ing. The company defen actions by saying that n sonal data were ever a ated with the informatio lected and that per information was never plied to third parties.

As for AOL, it n members that the reque opt out of pop-up ads ex after a year—on the f screen of details abou policy. "Most of our me don't mind the re process for opt-outs," spokeswoman Trisha rose. "During the cour a year the industry ch so quickly, we can offe members different serv Entities such as TrustE BBBOnline certify sites privacy standards, but requirements are minim

E-commerce may be y but it's time for it to gro Customers deserve t treated with respect. means no secret mechanisms in d loaded software an obscure "gotchas" bur privacy policies. Sites s think twice about resentment that lecting and se clickstream info tion will bree customers.

At a minim visitors should have a ple way to opt out of surveillance. Whe customer expre preferences about handling of an acco or the presentatio ads or offers, those tings should remain i fect until the account h changes his or her mind. no personal informat should be disclosed to t parties without explicit mission. Otherwise, a gov ment that has been watc privacy issues with a w eye may step in with re tions. Even worse, poten customers could start vo with their clicks, nipping commerce in the bud.

BusinessWeek ONLINE **GOT AN OPINION** about e-commerce and privacy? Go to our technology forums at www.businessweek.com/technology/. Or e-mail tech&you@businessweek.com

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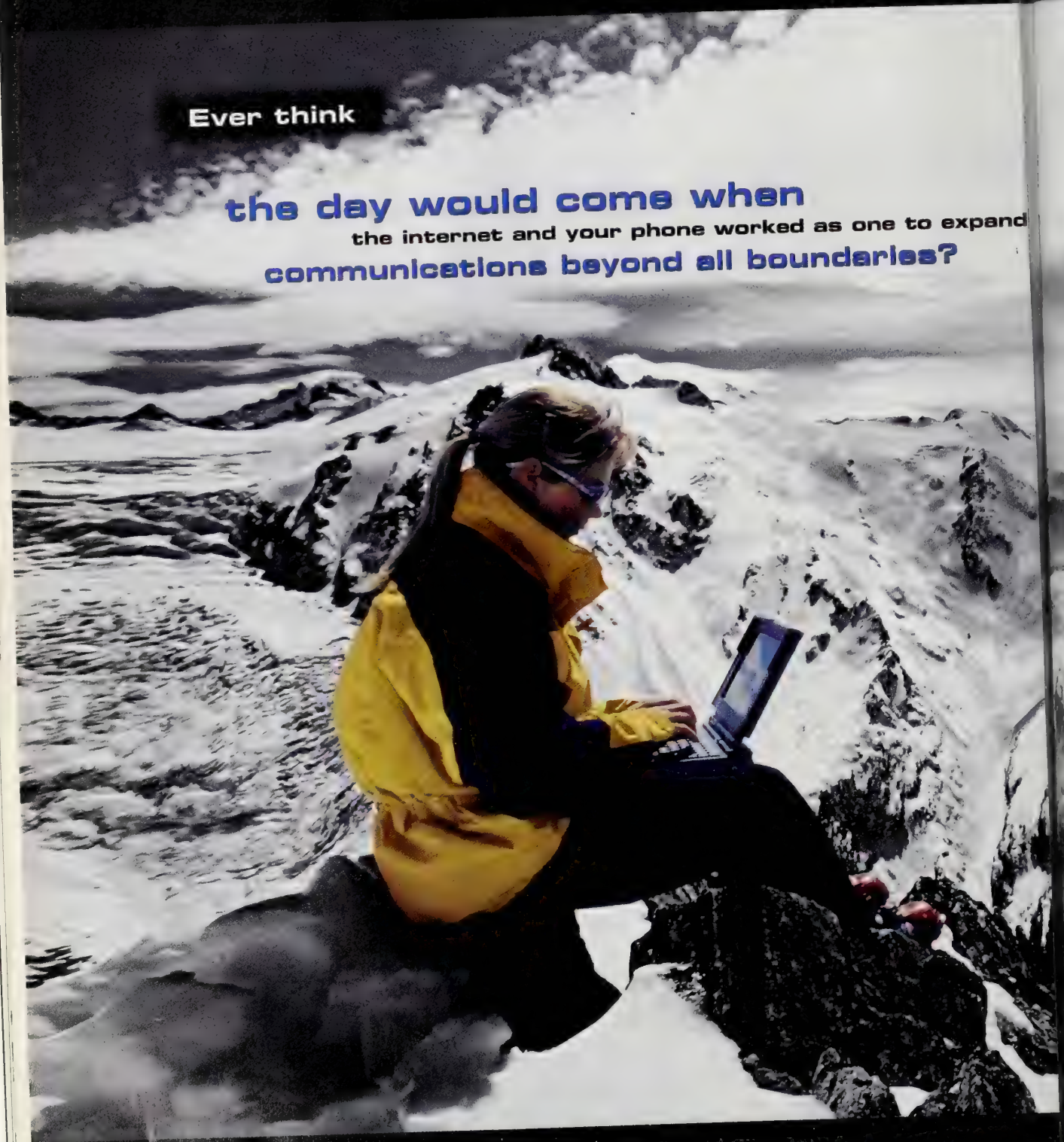

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BY LAURA D'ANDREA TYSON

THOUGH IT'S A NEW ECONOMY, IT'S GOT SOME OLD FLAWS

TRADEOFF: Productivity gains from technology have altered the economic playing field. But the business cycle remains volatile

Laura D'Andrea Tyson is dean of the Haas School of Business at the University of California at Berkeley and was President Clinton's chief economic adviser.

Let me start with a confession. Perhaps because I live near Silicon Valley, perhaps because as a business school dean I spend a lot of time with people in their 20s, or perhaps because I've caught a touch of millennial fever, I am rapidly becoming a New Economy convert. I still believe in fundamental economic relationships such as the law of supply and demand, but I am increasingly certain that technology is changing the parameters underlying these relationships, often—although not always—for the better.

The evidence for change is strongest in the relationships that underlie economic growth. The main determinants of an economy's long-run growth are technological improvements that enhance the productivity of its basic inputs—land, capital, and labor. And the evidence is mounting that the information-technology revolution is productivity-enhancing. Revised estimates show a substantial pickup in productivity growth after 1990, with a marked acceleration beginning in 1996. Since then, the U.S. economy has enjoyed an unexpected surge in productivity growth averaging 2.5% per year, a full percentage point higher than the 25-year average.

Skeptics question the permanence of these trends, arguing that they are the result of one-time corporate restructurings, and that they are largely limited to the computer and software sectors. But economic history suggests that productivity gains from new enabling technologies such as the Internet diffuse only gradually across the economy. If so, most of the economic benefits of information technologies are ahead of us, not behind.

The case for an improved tradeoff between unemployment and inflation is also getting stronger. Remarkably, 1999 defied traditional forecasts, as both the unemployment rate and the core rate of inflation, excluding food and energy prices, continued to fall. This surprise is explained, in part, by temporary factors such as a strong dollar and continued weakness in global commodity prices. But pervasive labor market changes—such as the increasing importance of stock options and temporary workers—are holding down both the unemployment rate and the growth rate of labor costs. In addition, faster productivity growth is enabling wages to rise for most workers without triggering cost and pricing pressures. On the downside, worker insecurity fanned by skill obsolescence and job dislocation may be dampening wage d

Another characteristic of the New E my is increasing global interdepende spite being rocked by financial crises, ing-market economies eschewed protec and global trade continued to expan than global output. The turmoil at th Trade Organization's Seattle meeting not obscure the fact that the past fe have brought breakthrough glob agreements in financial services, tele nications, and information-technolog ucts. And rising trade fosters a virtuo leading to greater competition and ef more rapid diffusion of innovations, a greater productivity gains. The challen ease the pain of those dislocated process and to devise multilateral fill the gaps caused by eroding sovereignty.

STILL VULNERABLE. What about the tions of the new technologies for th ness cycle and for the distribution of Here, both economic logic and the evi date are not as promising. Informati nologies have reduced inventories rel output, but inventories remain as vo before. Services—which historically ha more stable than goods—continue to as a share of output. But the increas pendence of services on a sophistic frastructure of hardware and softw probably increased their cyclical vulne And it is foolish to assume that th Economy is any less prone to financia bubbles and unexpected reversals i dence than the old economy was. In was old-fashioned economic policies terest-rate reductions, not new techn that brought the world economy ba the brink of a liquidity crisis in 1998.

Finally, the information technologie New Economy tend to increase inc equality by reducing the relative dem wages for unskilled workers. The e market reach made possible by the nologies also leads to winner-take- comes in which the most skilled co individuals, and countries command su premiums over those only slightly le fied. It will take political will and ima policies in education, economic devel and social safety nets to harness the p of the new technologies to reverse th of rising inequality.

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.MES C. COOPER & KATHLEEN MADIGAN

)NSUMERS KEEP STOKING IE ECONOMY'S FIRES

Fed's challenge: Slowing spending without killing growth altogether

U.S. ECONOMY Powered by consumers, the economy heads into 2000 with head of steam. Growth in the second half of 1999 rs to have been in the neighborhood of 5%, and, of any Y2K-related disruptions, there is no sign he economy is going to settle back on its own to e that the Federal Reserve will be comfortable That's why 2000 is shaping up to be the trickiest yet for monetary policy in this remarkable eco- expansion.

y? Up to now, the Fed has been content to allow conomy to run free, confident that strong pro- ity growth and weak global conditions would in U.S. inflation. But the Fed's thinking is chang- hat's evident from the hawkish tone of its state- after its Dec. 21 policy meeting, along with the ent urgency evident in the recently released es of the Nov. 16 meeting, when policymakers put gh an interest-rate hike for fear of losing the tunity later amid Y2K concerns.

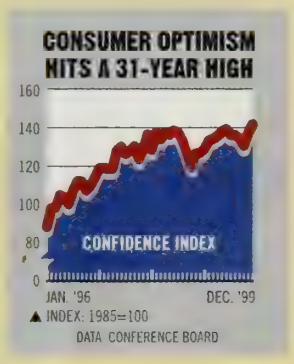
The bond market is latching on to the Fed's new mindset (chart). As of Dec. 28, the yield on the benchmark 30-year Treasury bond had risen to a two-year high of nearly 6.5%. The credit markets are building in expectations of at least two more quarter-point rate hikes into the structure of rates. And based on recent surveys, some Fed watchers e that even more hikes than that may be neces- o prevent inflationary pressures from building.

its last meeting in 1999, the Fed registered its n that "increases in demand will continue to ex- he growth of potential supply." That was the clearest statement to date that the economy is ng too fast for its own good. The bottom line: If h doesn't slow, the Fed will raise interest rates r until it does.

S WHERE CONSUMERS come in. Households no sign of dialing back their spending habits, e economy will not cool off until consumers do. l of 1999, consumer spending appears to have in excess of 5%, enough to account for almost all economy's growth.

Consumer outlays, before inflation adjustment, rose 0.5% in November, and weekly surveys suggest very strong December buying. Inflation-adjusted spending in the fourth quarter may not be much slower than the third quarter's 4.9% pace. And housing demand remains at a high level: November sales of existing homes jumped 6%, to an annual rate of 5.09 million.

As a result, real gross domestic product last quarter could end up posting another gain in excess of 4%, on top of the upwardly revised third-quarter advance of 5.7%. One drag on growth at yearend was foreign trade, as shown by the widening in the October trade deficit to a record $25.9 billion.



Household euphoria is powering the spending spree. The Conference Board's confidence index makes it clear that consumer optimism about the economy is the highest in a generation (chart). The index jumped to 141.4 in December, from 137 in November. Assessments of both the present situation and expectations six months down the road rose. Households seem to have shrugged off any worries that the Y2K date change on the world's computers will adversely affect the economy.

And the upbeat spirits are grounded in strong consumer fundamentals. As Lynn Franco, director of the board's Consumer Research Center put it: "Healthy paychecks, continued low inflation, and continued job opportunities will keep the economic expansion on its record-breaking course."

VERY SIMPLY, almost anyone who wants a job has one, a situation that will not be changing anytime soon. The Conference Board said that a record 51.5% of households report that "jobs are plentiful." Initial claims for unemployment benefits through mid-December are running at the lowest levels seen since the mid-1970s, and the jobless rate appears to be headed below 4%.

Strong labor markets are powering healthy gains in income. Personal income rose 0.4% in November, and during the past year real household earnings have grown a strong 3.5%. Even so, real spending over the past year has risen by a more rapid 5.5%.

As households continue to increase spending faster

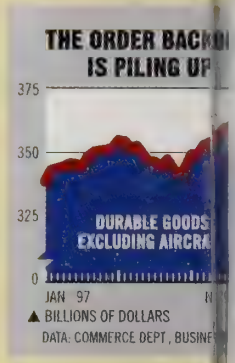
than their incomes are growing, the trend in the personal savings rate remains down. The rate averaged just 2% in the three months ended in November. That's a record low, and down sharply from 3.7% a year earlier and from 4.4% the year before that.

Households are bridging the gap between income and spending by depending increasingly on wealth gains. Consequently, past stock market increases will continue to spill over into 2000 spending behavior. But Wall Street's effect on consumers may complicate the Fed's decision-making. Policymakers know that tightening too hard could expose household finances to a double whammy of higher interest rates and flattening stock prices. But the Fed may have no choice but to tap on the brakes again as long as demand continues to rev up.

AND ONE KEY SIGN that the economy is firing on all cylinders is the growing momentum in manufacturing, as the global recovery augments already strong domestic spending and as businesses feel the need to build up their inventories, which have become skimpy relative to demand.

Factory orders tell the story. New bookings for big-ticket durable goods, such as home-related items and business equipment, jumped 1.2% in November, after declining in both September and October. The gain would have been nearly 2% if not for a falloff in aircraft orders, which can be volatile from month to mo skewing the overall result. Based on a six-mont ing average, the trend in orders is clearly up. Mo the trend in new orders for capital goods is a strongly, suggesting little slowdown in business for new machinery and equipment.

New orders are coming in faster than factories can ship out goods. So the backlog of unfilled bookings, excluding aircraft, is increasing rapidly (chart). That means industrial production should post good gains in the new year, sopping up some idle output capacity. Low utilization rates in manufacturing, partly reflecting the Asian crisis and its aftershocks, have been a big reason why goods infla the U. S. has remained so low.



For 2000, the Fed is facing the challenge of p off a soft landing for the expansion. That is, th must find the level of interest rates that will sl economy but not cause it to crash. It's a trick neuver. The last time the Fed attempted it wa years ago. The result: Growth slowed to 2.2% i from 4.2% in 1994. Let's hope the Fed shows the piloting skills in 2000.

ITALY

A LATECOMER JOINS THE PARTY

Italy's economy, the euro zone's laggard for four years, is finally kicking into a higher gear, but don't expect a boom. So far, the upturn is export-led, with domestic spending still depressed.

That was the word from Italy's third-quarter report on gross domestic product, which grew a stronger-than-expected 0.9% from the second quarter, the fastest pace in more than two years. The showing means that 1999 growth may reach the government's 1.3% target. Analysts generally project 2000 growth at a little more than 2%, which would trail the 2.8% pace expected for the entire euro bloc.

Powered by a global recovery and a competitive euro, third-quarter exports jumped 3.8%, the best gain in two years. Exports account for about a quarter of GDP. Stronger foreign demand is fueling a pickup in manufacturing, and, as a result, business investment, especially in machinery, advanced by 1.5%.

However, consumer spending edged up only 0.3% in the quarter. Modest wage growth and some fiscal drag left over from past belt-tightening are limiting income growth. Those drags will continue in 2000, but somewhat stronger job gains and past steep cuts in interest rates prior to the euro's introduction will support household spending.

Already, credit growth is pi ing up sharply, and constructi recovering from a long slump. cently, consumer confidence ha picked up, as Italy's unemploy ment rate in October fell to 1 the lowest level in more than years. Moreover, October reta sales, up 3.1% from a year ago exceeded analysts' expectation

Reflecting a sluggish domes demand, the inflation outlook i benign, despite the continued dency of Italian inflation to ru slightly higher than the 1.6% e zone rate. Deregulation, especi in telecommunications and ene is helping to hold back prices. Moreover, the 1999 slowdown i wage growth will limit price growth in 2000, and the contin rebound in economic growth w further restrain unit labor cost as productivity picks up.

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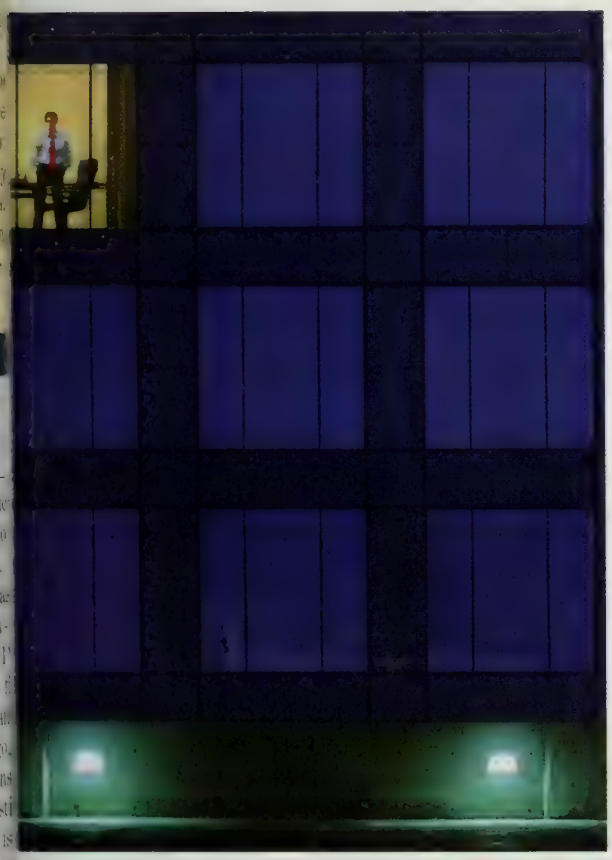

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SHOP TILL THE BALL DROPS

Consumers go on a buying binge that could last well into the new year

As if anyone needed more evidence, the last holiday season of the millennium proved that America's real national pastime is shopping. At the mall, by mail order, or by mouse, prosperous consumers swung into high gear. And they didn't stop on Dec. 25. Online mall Yahoo! Shopping says that on Christmas Day it racked up more sales than on its busiest day in all of 1998. And shoppers flooded back into stores, too. "I was stunned" by the Sunday after Christmas, says Michael Gould, chief executive of Bloomingdale's. And with clearance sales still running, he crows: "It's not over yet." Indeed, some analysts are expecting the buying binge to last into February as Y2K-phobes spend the cash they had hoarded.

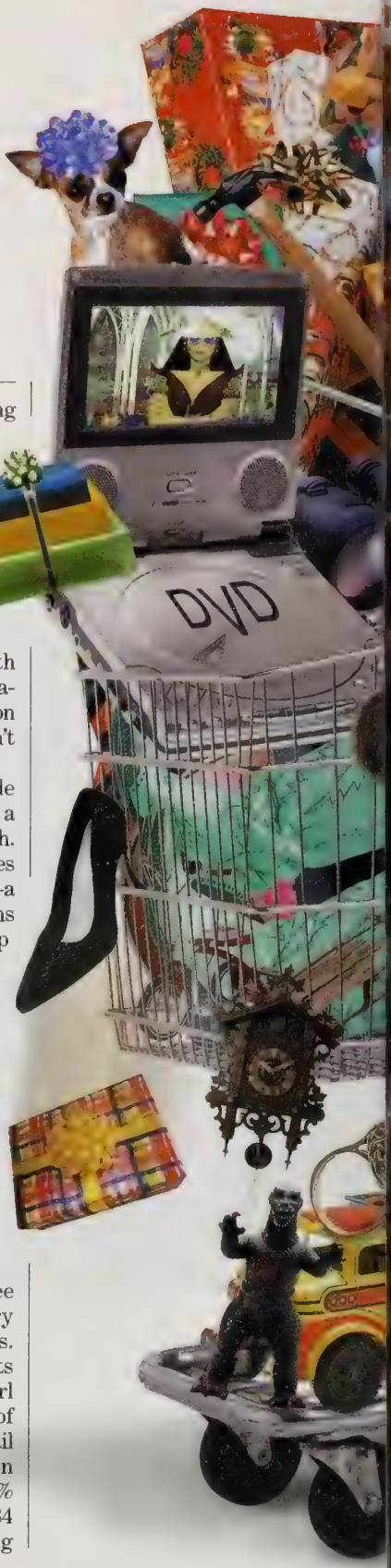
E-TAIL BACKLASH. And, despite predictions that online shopping would divert consumers from real-world stores, it looks as if almost everybody shared in this orgy of separating Americans from their wealth. Indeed, if anybody has to worry about a January hangover, it is the "e-tailers," many of which piled on huge discounts and promotions to push up volume—no matter what the cost (page 44). On the Monday after Christmas, investors started dumping stocks of such e-tailers as eToys and Amazon.com on concerns about profit problems and a possible backlash from consumers who experienced poor service. eToys CEO Edward C. Lenk says the company delivered 90% of its orders on time, fulfilling more than 1 million holiday orders. "In the overall context of scale, volume, and quality, we delivered," Lenk says.

More broadly, the consumer binge could give the Federal Reserve more reason to raise rates to cool an overheating economy in February. "The Fed can't dodge another gross domestic product growth rate in excess of 4%," says Cary Leahey, senior economist at Primark Decision Economics Inc. in New York. "They don't want to take any chances."

This season for all retailers was made possible by folks like Bonnie Cole, a fourth-grade teacher in Issaquah, Wash. The 50-year-old mother of two epitomizes the new *consumerus americanus*—a species of "cross-shopper." Like millions of others, Cole ventured online to shop for the first time this Christmas. For her husband, she bought science-fiction novels from Amazon.com and a $90 stainless steel exhaust extension from ecorvette.com.

But she also drove over to the mall to snap up glassware and apparel at Bon Marché and discounted outerwear at Helly Hansen, a nearby warehouse-style outlet. "I go all over the place," says Cole, whose Christmas bill totaled about $3,500, some $500 more than she spent last year.

The final tally for this holiday spree won't be known until early January when retailers report December sales. But many economists and retail analysts say holiday '99 surely set records. Carl E. Steidtmann, chief retail economist of PricewaterhouseCoopers, figures retail sales, excluding autos, hit $574 billion in the fourth quarter—a stunning 8% gain and the biggest jump since 1984 (chart). With low unemployment, strong



At the mall, by mail order, or by mouse, shoppers lo

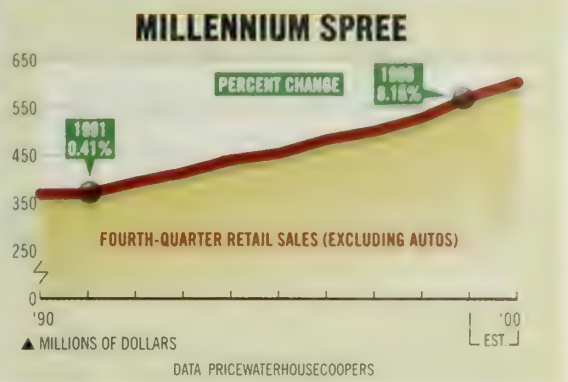
income growth, and healthy consumer confidence, "This is as good as it gets," says Steidtmann.

Many traditional retailers may even see fatter margins. Instead of focusing mainly on sale items—as customers have done in recent Christmases—they snapped up pricier goods. The Coach store in Boston's tony Back Bay did a brisk business in $42 leather dog collars, $48 leashes, and $108 dog coats—driving its year-over-year gross up by 30%. Elsewhere, pashmina shawls, cashmere sweaters, Waterford crystal, and DVD players were all hot sellers. Among the big movers at Macy's West was merchandise to commemorate the millennium—everything from special champagne flutes to formal wear. "Our men's tuxedo business was sensational," says incoming Macy's West CEO Jeremiah J. Sullivan.

ILL-SPENT AD DOLLARS. Still, for the unfortunate few, 1999 will be remembered as a missed opportunity. Both Sears and J.C. Penney, which have been struggling to boost sales all year, expect their December sales to be flat. Toy sales might be another disappointment, says analyst John G. Taylor of Arcadia Investment Corp. in Portland, after a year in which there was just one white-hot property—Pokémon.

Most traditional retailers, however, did surprisingly well, considering the huge advertising and promotion efforts by dot.coms. Some of that money already seems ill spent. David A. Blohm, CEO of SmarterKids.com, an educational toy e-tailer based outside Boston, says Christmas sales "basically came in as expected." In the dot.com world, that's underwhelming: Stock in SmarterKids, which went public in November, is trading at half its opening price. Blohm is particularly disappointed in his TV ads. "There was just too much clutter out there," he says.

Overall, however, the online stores managed to meet or even exceed the hyper expectations investors had. The Boston Consulting Group and Shop.org, a trade association of online retailers,



DATA PRICEWATERHOUSECOOPERS

estimate that online sales for November and December surged 300% over last year to about $10.5 billion. Despite scattered reports of late shipments and other service problems, "the holiday established e-tailers as being for real," says Robert F. Buchanan of A.G. Edwards & Sons.

In the brick-and-mortar retailing realm, data from check acceptance company TeleCheck Services Inc. shows that all regions of the country shared in the boom. New York led the way in conspicuous consumption with a 7.2% same-store sales gain.

The wealth has also been spread among top retail chains. Analysts expect the winners to include Federated Department Stores Inc., owner of Bloomingdale's and Macy's; discounters Wal-Mart Stores Inc. and Costco Wholesale Corp.; and specialty-apparel retailers American Eagle Outfitters Inc. and The Talbots Inc.

Consumer electronics chains also found their stockings stuffed. New products such as DVD players and digital cameras are boosting same-store sales at the 354-unit Best Buy chain in the mid-single digits. Best Buy is coming off a strong showing last year, estimates analyst David A. Schick of Robinson-Humphrey.

Some clear winners and losers are emerging in the online world, too. Toys 'R' Us Inc.'s Web site couldn't handle the surge in traffic after

DVD players, crystal, and pashmina shawls

a big print promotion. Then, it couldn't ship some gifts in time for Christmas. Laurie Windham, CEO of market researcher Cognitiative Inc., notes that it took her two hours to buy 12 items on Gap's slow site. "It was abysmal," she says. Mighty Wal-Mart, which pushed back its upgrade of Wal-Mart.com to early 2000, warned customers that it couldn't guarantee Christmas delivery after Dec. 14.

Unlike Wal-Mart, some e-tail upstarts could be in trouble if, when all the numbers are tallied, they didn't get their share of the spoils. Jaime Pereira, a partner at Ernst & Young who oversees retail accounting, figures venture capitalists will soon pull the plug on the weaklings. "Many will be acquired or go out of business," he says.

Consumers, on the other hand, are expected to keep hard at it. The latest survey of consumer confidence, released on Dec. 28, showed optimism at record highs. And many consumers s Steidtmann, will have money o h that they stockpiled against a Y2 gency. So, he's projecting a healt gain in retail sales for 2000. Th way to kick off a new American S ping Century.

By Wendy Zellner in Dall A.T. Palmer in Chicago, Rob San Mateo, Larry Armstrong Angeles, Geoff Smith in Bost bureau reports

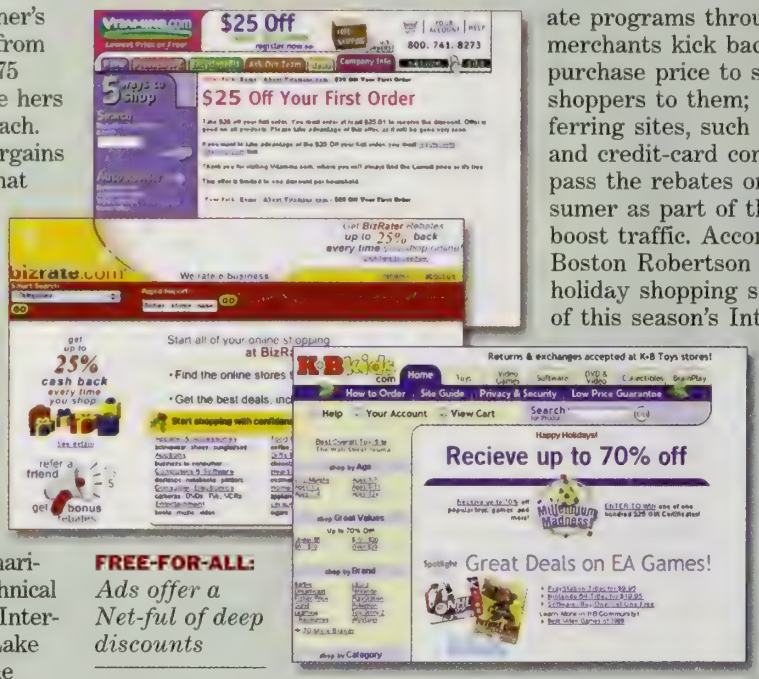
E-TAILERS KEEP GIVING AWAY THE STORE

By her reckoning, Mary Wisner's best deal came in October from BravoGifts.com: a pair of $75 North Face computer bags were hers for the shipping costs of $4.95 each. But she snagged many more bargains as she zeroed in on Web sites that were doing all they could to boost fourth-quarter sales. Through a promotion at PlanetRX.com, she scored $600 worth of merchandise simply by referring friends to the site. Then there were the six children's sleeping bags—$1.98 each after the $10-off coupons she won on DSports.com's football quiz.

By Thanksgiving, Wisner had so many Net freebies she started donating them to local charities. Wisner, who works as a technical writer for Computer Associates International Inc. from her home in Lake Wylie, South Carolina, figures she spent $255 on the Internet over the course of the year—for goods she might have paid $3,202 for at the mall.

"A DO-OR-DIE CHRISTMAS." As Wisner can attest, Internet retailers, in their feverish quest to build market share, virtually gave away the store this year. Fueled by a seemingly endless flow of funding from venture capitalists and stock offerings, Web startups spent lavishly on TV and print ads and baited consumers with unheard-of bargains. "Many companies considered this a do-or-die Christmas," says Lise J. Buyer, an analyst at Credit Suisse First Boston. "At the rate they're subsidizing prices, there's no question that the knowledgeable consumer could clean up."

Consider Perfumania.com, for example. In addition to a sweepstakes to win a 2000 Corvette and an ongoing five-items-for-$25 promotion, the online affiliate of the Miami discount fragrance chain picked one "secret shopping day" during Christmas week and fulfilled all orders that day for free. The company estimates it rebated $25,000 to lucky customers.



FREE-FOR-ALL: *Ads offer a Net-ful of deep discounts*

Up-front discounts to snare new customers abound. At Vitamins.com, first-time buyers can get $25 off any order of $25.01 or more, and there's no charge for shipping. But the savviest Web consumers revel in complex online rebates that go beyond conventional bargains. At bulletin boards such as misc.consumers.frugal-living and Moms Online on America Online, shoppers swap discount codes that, when typed in at an online checkout, reward the shopper with everything from dollars off to free shipping.

They also take advantage of affiliate programs through which We merchants kick back part of the purchase price to sites that refe shoppers to them; some of thos ferring sites, such as BizRate.co and credit-card company sites, pass the rebates on to the consumer as part of their own driv boost traffic. According to Ban Boston Robertson Stephens' an holiday shopping survey, fully 4 of this season's Internet buyers took advant of such pro tional schem in the shop period befo Christmas, analyst Lau Cooks Levi She scored discount on watch for h husband at ury goods veyor Ashford.com. "It's an inc ble opportunity for consumers, it can't go on forever," Cooks L tan says.

Indeed, in January, the Intern merchants will start toting up t damages. It's a sure bet that th record revenues will be dwarfe marketing and promotion losses "That will determine who gets next round of financing," says B

But for now, at least, it's a sh per's paradise. Take www.drugst depot.com, which isn't going onl until later this year, but is alrea mailing out dollars-off coupons t comers. "I figure that if you pai more than just shipping, you pa much," Wisner says. Maybe the another online opportunity in th freeshipping.com.

By Larry Armstrong in Los A

COMMENTARY

By Peter Elstrom

HOW BELL ATLANTIC CAN SHAKE UP LONG DISTANCE

t last. More than three years after Congress passed the sweeping 1996 Telecommunications Act deregulate phone markets, the st Bell has won approval to offer ng-distance service. On Dec. 22, ll Atlantic Corp. got the green ht to sell long distance to individuals and businesses in New York ate. It's a historic moment. The aby Bells had been barred from ng distance when they were created in the breakup of Ma Bell in 1984. e 1996 act allowed the Baby Bells o the $80 billion long-distance arket, but only after they could ove that their local markets were en to competition. Now, state and deral regulators agree that the w York-based Bell has done so.

With victory in hand, Bell Atlantic o Ivan G. Seidenberg can make s a defining moment in the industry's history. For years, he argued at the Big Three long-distance yers—AT&T, MCI WorldCom, and rint—were gouging customers, rticularly ones who weren't big enders. With Bell Atlantic expected to unveil its long-distance marting plan on Jan. 4, Seidenberg s that "we plan to be aggressive d innovative, but we don't want to e value out of the market." That ptic comment, insiders say, suggests that the plan may only appeal low-spending customers and be y marginally better than existing ns.

Seidenberg can and should do more to prove that Bell Atlantic has evolved beyond its monopoly roots. Despite the nod by regulators, not everyone thinks Bell Atlantic has done a sufficient job of opening up its local markets. AT&T, which is pushing into local phone competition, has been trying to get the Federal Communications Commission to stay its decision. So has Robert E. Knowling Jr., CEO of broadband Net access provider Covad Communications Co. In a letter to FCC Chairman William E. Kennard protesting the approval, he wrote: "This is like the classroom bully getting rewarded."

SEIDENBERG: *Consider freebies?*

Here's how Seidenberg can keep the critics at bay. For starters, he should give long distance away for a month to any New Yorker who wants it. Let them call as much as they want. Anywhere, no strings attached. Sure, it'll cost a bundle, but Seidenberg has said he wants to get 25% to 30% of the long-distance market in New York in five years. This could produce that result in five months. More important, regulators would applaud him, and customers would demand that Bells be allowed into long distance in other states. If he wants to play it safe, limit the giveaway to $100 of long distance—spending $100 million to get 1 million customers could be well worth it for a company with close to $3 billion in net income.

Or try this: Bell Atlantic already sends monthly phone bills to almost everybody in New York State. Next month, it should include a note letting customers know that they don't have to pay their local bill for a month or two if they sign up for long distance. It's at least as appealing as those $100 checks the long-distance companies send out. "Can you imagine?" says Wayne M. Perry, a former AT&T executive and now vice-chairman of NEXTLINK Communications Inc., a local-phone rival. "Everybody's going to take that offer. [AT&T Chairman] Mike Armstrong's wife is going to take that offer."

NET GAME. If these giant marketing giveaways are too rich for Bell Atlantic's blood—or for its shareholders'—how about some simpler, less costly ways to earn goodwill? To get the best rates from the Big Three, customers pay $5 a month or call only on nights and weekends. The plans may be cheap, but it's too hard to figure out savings. Offer round-the-clock low rates with no fees.

And don't forget about Internet access. Seidenberg should give away long distance for a month or two if customers sign up for Net access using his new digital subscriber lines. That would at last threaten the cable companies in broadband communications to the home.

The FCC, Congress—everybody—is watching. If Bell Atlantic wants to quiet the critics and fulfill the promise of the Telecom Act, now is the time to break the rules.

Associate Editor Elstrom follows telecommunications from New York.

CKLASH: *A rival, Covad, es foul*

December 15, 1999

orable William E. Kennard
Communications Commission
Street, S.W.
gton, D.C. 20554

Re: Bell Atlantic Section 271 Application for New York State

hairman Kennard:

widespread consensus that Bell Atlantic has failed to satisfy its on to provide Covad and other competitors with nondiscriminatory access to ed loops. That consensus is reflected in the Justice Department's evaluation of Bell 's application, the presentations recently made to FCC staff, and your inquiry.

There is, however, a solution that would be far preferable to a mere stitute a promise for the actual performance required by section 271. The Commission ld deny the pending application, give Bell Atlantic a clear roadmap of what problems to and how to fix them, and invite Bell Atlantic to return to the Commission quickly with se problems solved for a fast-track approval of its subsequent application.

Robert E. Knowling, Jr.
President and CEO
Covad Communications Company

TELECOMMUNICATIONS

THE JUICIEST MORSEL IN CABLE?

RCN's affluent urban markets make it takeover bait

McCOURT: *In need of marketing clout*

When he was a contractor building cable-TV systems for the big guys 20 years ago, David C. McCourt once got into a billing dispute with Charles F. Dolan, the hard-driving founder of Cablevision Systems Corp. McCourt's idea of conflict resolution? He ripped out a section of the cable lines he had laid.

McCourt is no longer a kid. But the 43-year-old entrepreneur is still challenging the communications establishment. His cable upstart, RCN Corp., is building a $12 billion fiber-optic network to compete with the nation's cable TV and local-phone giants. And by carefully drawing his network in the most desirable urban neighborhoods, he is creating something the big guys covet: high-speed connections to deliver TV, telephone, and Internet service to the best customers. Although RCN has only 800,000 customers, they are concentrated in places such as Manhattan and Boston. While the average cable operator reaches 38 homes per mile of cable line, RCN can reach up to 150 homes (table). And although RCN's networks, scheduled for completion in eight years, will cover just 6% of the country, they'll compete for 44% of its telecommunications traffic. "I have more product where people spend more money," says McCourt.

Still, RCN may wind up needing the big guys more than they need him. Analysts say he can break even if 20% of the homes RCN passes take one or more of its services. But few cable rivals have ever snagged more than 10%. So McCourt may find it easier—and more lucrative—to join with one of the giants he aims to compete with than try to beat them. Some analysts are betting that RCN, with $355 million in revenue expected for the year ended Dec. 31 and a $3.5 billion market cap, will soon be swallowed by a cable giant or a phone company such as AT&T or Bell Atlantic. Not surprisingly, RCN stock is up 161% for the year at 46¼.

Among the most likely bidders: Charter Communications, the fast-growing cable empire of Paul G. In October, the Microso founder's Vulcan Ventures $1.65 billion into RCN, rais stake to 27.4%. from 4.5 raising eyebrows among ca erators who face competitio RCN. Now, sources close t say both Allen and AT&T (now the nation's largest ca erator) have expressed inte buying the company.

"NATURAL FIT." If Charter up with RCN, that could sp other, bigger deal, predicts Kirby, a vice-president at t consultancy Renaissance Wo Inc. He figures that MCI Wo Inc. could be interested in b combined Charter-RCN to its menu of long-distance, net, and—if its acquisition of Corp. goes through untou wireless offerings. "MCI Wo and RCN like a natu says Kirby MCI, Vulca Charter d to comme source familiar with the conta tween Allen and RCN says the bil would like to complete a deal next 18 to 24 months.

In the meantime, McCourt ha busy doing smaller deals of hi On Dec. 13, RCN agreed to bu Century Telecom Group in Chic $250 million, giving it a bigger f in that market. And it is nego with the City of Los Angeles to a combination of video, voice, a to residents in wealthy neighbo such as Sherman Oaks and Bren RCN has also expanded its n through deals with utilities in and Washington, and more s liances are likely.

What McCourt may still need race to sign up broadband cus intensifies is the resources to fi marketing battle. Th year-old business has up losses now appr $617 million. And Lynch & Co. doesn't RCN to produce its f profit until 2005. Th other reason why in are betting that the upstart won't be in dent for long.

By Steven Rosenb New York, with Grover in Los Angel

THE LAST MILE

By focusing on well-to-do city dwellers, RCN gets more revenue per mile of wire

	CABLE OPERATORS	LOCAL PHONE COMPANIES	RCN
AVERAGE NO. OF RESIDENCES PER NETWORK MILE	38	26	150
AVERAGE MONTHLY BILL	$39	$35	$134
POTENTIAL REVENUE PER MILE	$17,784	$10,920	$241,000

DATA: YANKEE GROUP

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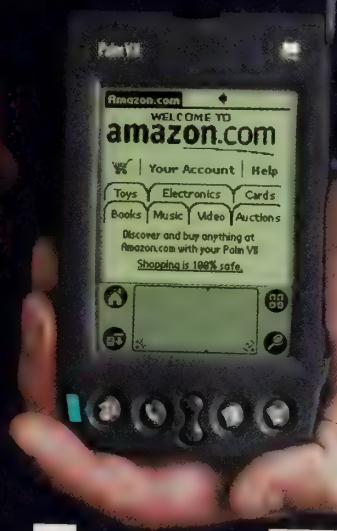

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EUROPE

GERHARD SCHRODER, HERO OF GERMANY INC.?

His tax proposals could redraw the corporate map

The restructuring wave that had been building in Germany could turn into a tidal wave by this time next year. That's when a proposal by Chancellor Gerhard Schröder—if approved by parliament—would eliminate Germany's 50% capital-gains tax, making it possible for banks, insurance companies, and conglomerates that hold vast chunks of the nation's largest companies to sell out. When news of the proposal trickled out, German financial stocks surged 10% before Christmas, pushing the DAX Index to an all-time high. "It's going to be a big bang," says Goldman, Sachs & Co. economist Thomas Mayer in Frankfurt.

Because the punitive capital-gains tax kept them from selling, the financial institutions and conglomerates have built up huge equity stakes in the country's blue-chip manufacturers, from carmaker Daimler-Benz (now DaimlerChrysler) to drugmaker Schering. Earlier this century, companies such as Deutsche Bank often took equity in lieu of cash payments for loans. As Germany prospered after World War II, the stakes increased enormously.

Until recently, the investors and the companies were happy with the arrangement—nobody pushed for big restructurings or layoffs. But in the 1990s, Deutsche Bank, insurer Allianz, and other members of Germany Inc. have lobbied the government to eliminate or lower the capital-gains tax so they could cash out and reinvest in core businesses.

Although the reform was long expected, Schröder surprised many by slipping his proposal into a yearend tax plan. The capital-gains cut accompanies an ambitious-looking plan to cut top personal income-tax rates from 53% now to 45% eventually and corporate taxes from 45% at present to 25%. Deutsche Bank economist Ulrich Beckmann figures the combination of no capital-gains tax and lower income taxes could boost growth by 0.5% in 2001.

STOCK HOARDS. Now investors are feverishly figuring out what the big companies will do with their stock holdings. Deutsche Bank is sitting on shares worth $25 billion, including 12% of DaimlerChrysler. Allianz' German stocks are worth $40 billion, analysts say. Dresdner Bank, Commerzbank, and Munich Re have similar stockpiles of shares.

How will the selling unfold? Veba, a utility with holdings in chemicals, oil, and transportation, is expected to accelerate sales of units that don't fit with the main corporate mission. That will likely mean investing in utility companies around the continent. Giant Siemens can also speed up its spinoff of unwanted units.

There are still hurdles to clear. The left wing of Schröder's Social Democratic Party has been quiet on the proposal so far. While the Deutsche Gewerkschaft Bund, a union group, pronounced the proposals "tolerable," the German left usually opposes anything that looks too pro-business.

Those suspicions could translate into action if it becomes clear the stock selloffs will bring in new investors who will force restructurings or mergers that cost jobs. And even successful companies could fall into foreign hands.

WINDFALL: *If Schröder's proposals go through, giants like Deutsche Bank stand to make a kill*

If Allianz sells its 10.1% positi Schering, the buyer won't neces be German. And German bank insurers are likely to use their cash to balance their portfolios investments outside Germany. former holdings, meanwhile, are to go to foreign buyers.

If political resistance stiffens, S der's reaction will be pivotal. The cellor has warmed to the tax pro of his Finance Minister, Hans E because he wants to boost growt cut unemployment before the ne tional elections in 2002. But wit election in the balance, reform cou be postponed.

By Jack Ewing in Fran

WHERE THE MONEY IS

DATA: COMPANIES, BUSINESS WEEK, AND ANALYST ESTIMATES

ALLIANZ

Total value of holdings: $40 billion in major companies, including Deutsche Bank, Schering, and BASF

DEUTSCHE BANK

Total value of holdings: $25 billion, in DaimlerChrysler, Allianz, tire maker Continental, Munich Re, and Philipp Holzmann

MUNICH RE

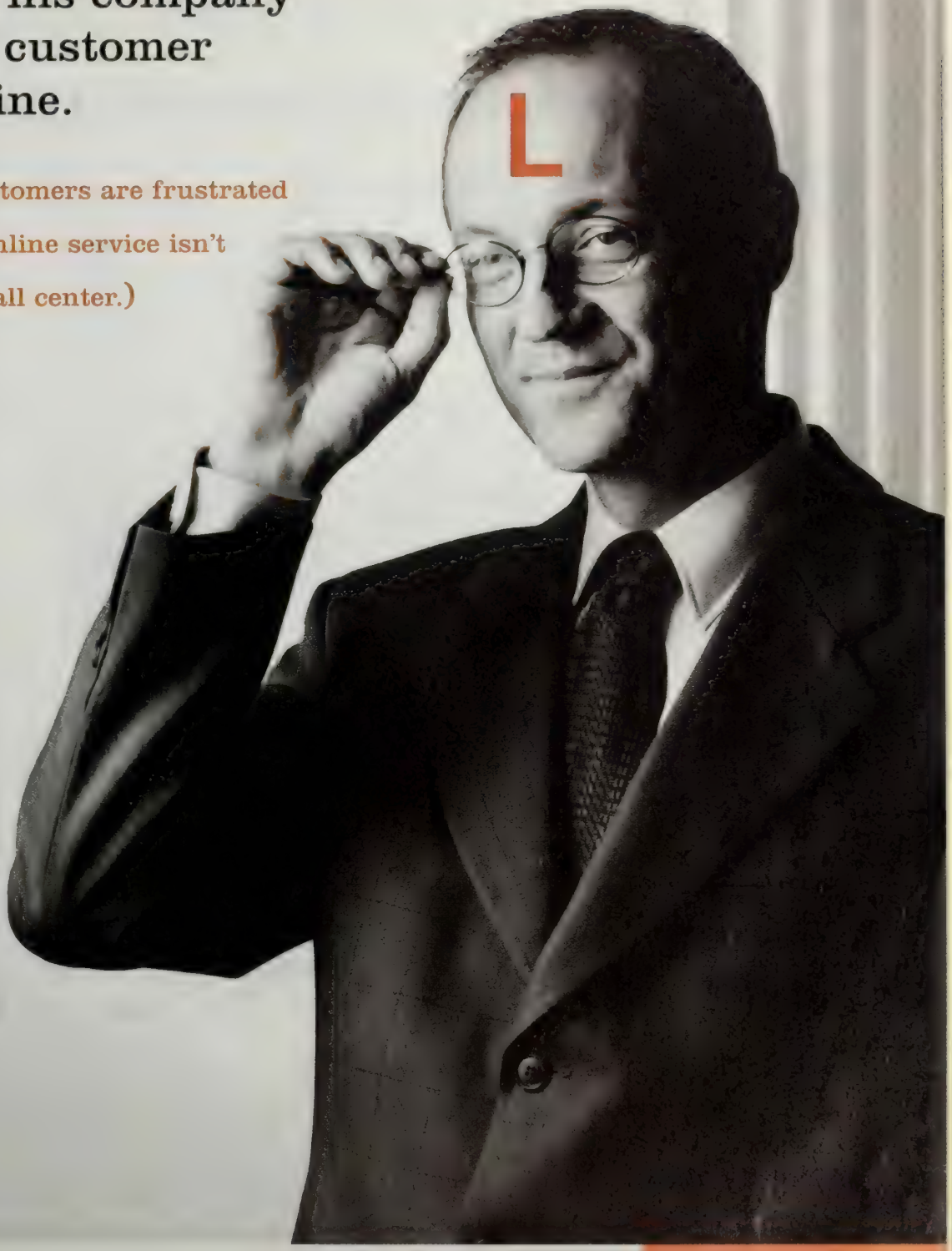
Total value of holdings: $29 billion. The reinsurer has stakes in Allianz, insurer Ergo, HypoVereinsbank, and truckmaker MAN

DRESDNER BANK

Total value of holdings: $15 billio in Allianz, BMW, Metallgesellschaft, and retailer Karstadt

's proud his company w offers customer rvice online.

esn't know customers are frustrated use his new online service isn't nected to the call center.)



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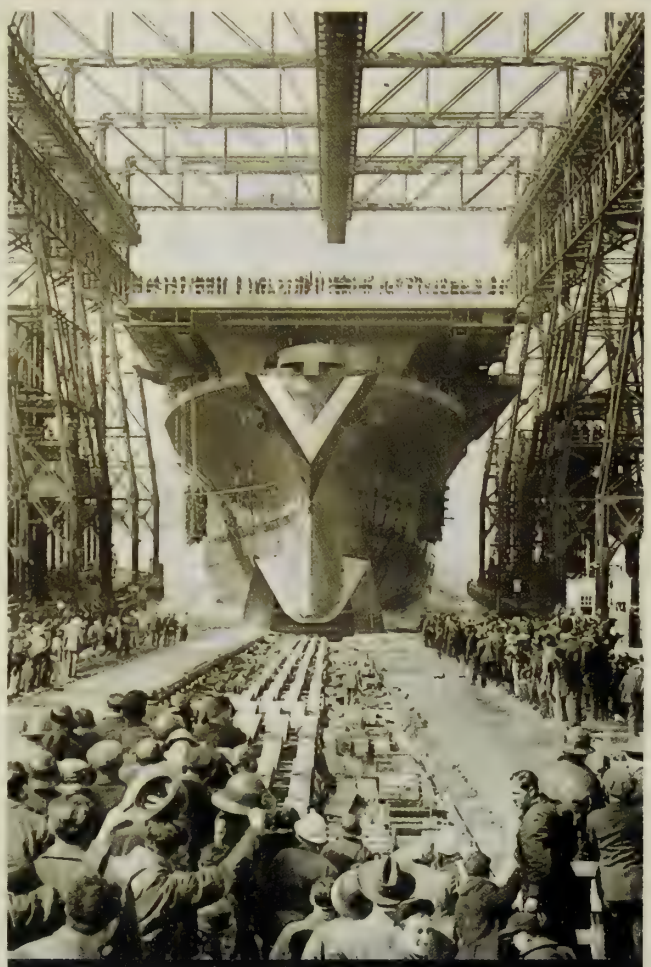
COMMENTARY

By Stan Crock

REVEILLE FOR GOVERNMENT ARSENALS?

With apologies to William Tecumseh Sherman, it's peace that is hell—for the American defense industry. Downsized in response to shrinking Pentagon budgets, the arms complex has dwindled to a handful of ungainly conglomerates—many beset by giant bottom-line problems. Stock prices of Lockheed Martin Corp. and Raytheon Co. hover near 52-week lows as earnings disappointments pile up. Bonds of defense contractors verge on junk status. "If the industry cannot raise the capital it needs," Credit Suisse First Boston analyst Pierre Chao warned in a Dec. 7 memo, "then the U. S. could have a national security problem."

The outlook is so grim that it may be time to think the unthinkable—transforming today's companies into regulated utilities. It's a drastic approach. But with too many companies chasing too few defense dollars, analysts warn of an impending "death spiral" as companies find their costs of capital soaring amid shrinking revenues.

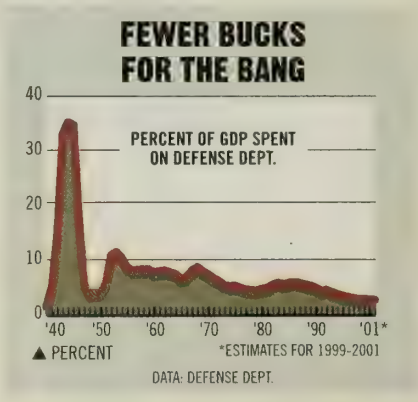


1944: *Launching a carrier at the Brooklyn Navy Yard*

The Defense Dept. has some ideas for new ways of ensuring competition that, it says, can head off this doomsday scenario. In January, the Pentagon's acquisitions czar, Jacques S. Gansler, is expected to unveil such nostrums as giving research and development funds to losers of competitions for big contracts—an idea with some support among politicians.

But modest tweaks won't work. Nor will letting industry consolidation simply proceed on a more global scale: U. S. military hardware is far ahead of what European suppliers make, and the rules governing transfers of military-related technology overseas are so restrictive they would quash most transatlantic deals anyway.

What's needed is a radical rethinking of the way we arm the nation. That's where the public utility/arsenal concept comes in. Under this arrangement, arms makers would become investor-owned arsenals with a guaranteed rate of return and a predictable share of Pentagon contracts.



Sounds impractical? Th is ample precedent. A r government arsenals a d shipyards were the co arms production from e nation's founding until e 1940s. At 1.6% of gros l mestic product in 1940 l fense was just too sm: t sustain a defense indu y At the end of the war h was no longer the case a during the decades of e cold war it rarely dip low 5% of GDP. By the r military spending peak 11.7% of GDP in 1953, t U. S. had a massive m industrial complex wit healthy competition ar h py investors.

But the system gre shaky when the Berli W collapsed. Pentagon-d e consolidation propped p share prices—but only f while. Today the defe budget is 3% of GDP a dropping, and procure e spending is off nearly 0 from the 1987 peak of 1 billion. Competition is o sham: Raytheon has m olies on tactical missil and Lockheed Martin a one on anti-sub weapo s.

For market solution t work, defense contractors need marketplace. That means produ cles short enough to allow shift i suppliers, demand enough to su competitors, and Darwinian co tion for contracts.

BOOMER FACTOR. None of these ditions pertain. Lose a major co like McDonnell Douglas did wit Joint Strike Fighter, and you're luck for 30 years. Moreover, the no innovative startups clamorin be defense contractors. The situ is likely to get worse in a decad so, as retiring Baby Boomers' c for increased Social Security an health-care spending brings add pressure on the defense budget.

The military has been trying t serve the illusion of competition- keep more companies in busines

eDoctor
Global Network

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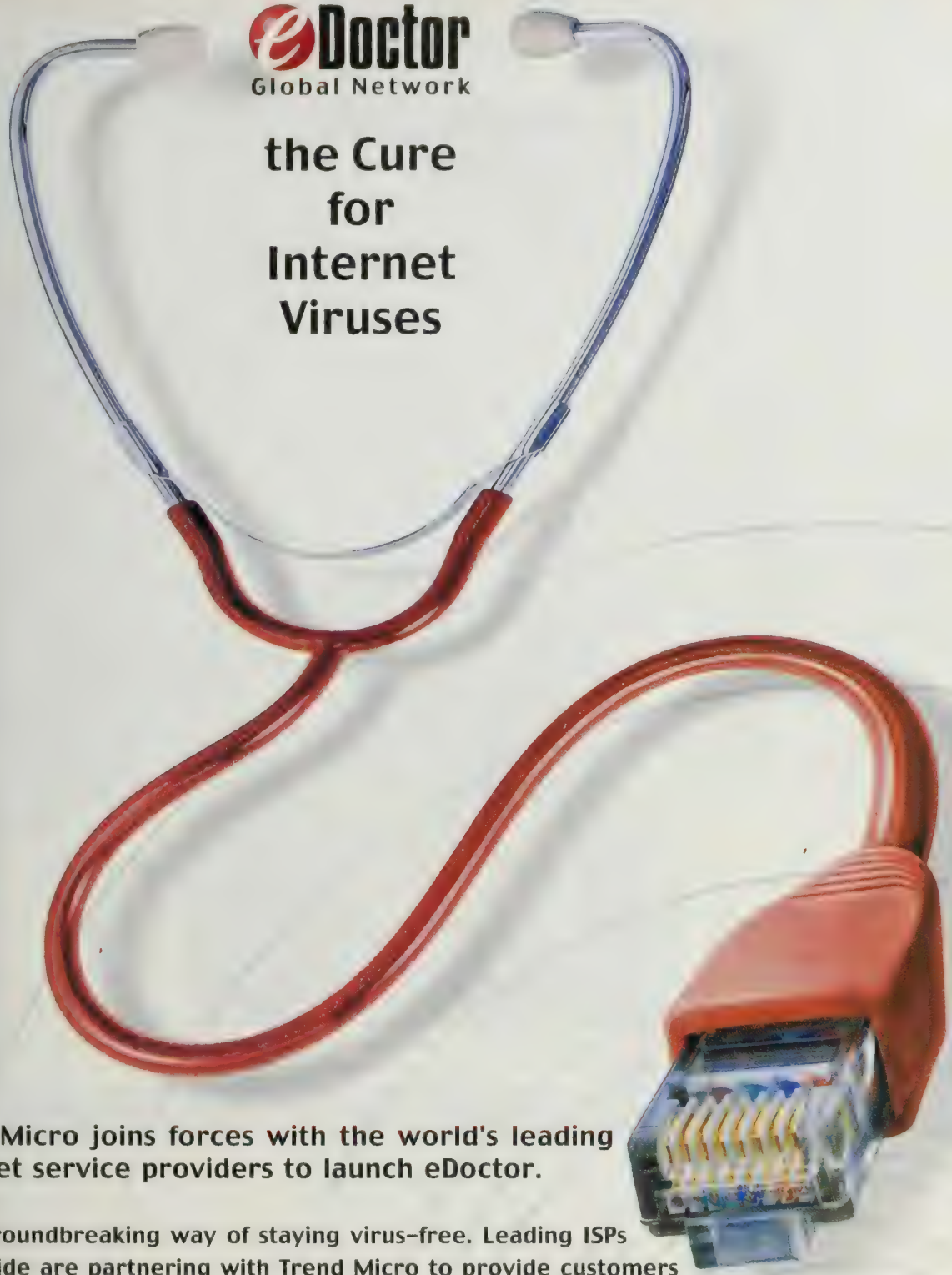

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divvying up contracts. That's hardly a solution. If companies know they'll get a piece of the action, they have little incentive to submit a truly competitive bid. And getting only some of the work can mean red ink—even for the "winners."

Better then to consider the utility model. Start by taking consolidation to its logical end, creating monopolies in a host of product lines. Next, force the divestiture of commercial businesses, which have often been costly distractions from the core businesses anyway. Shrinking these companies will also make them more manageable.

It's not such a huge step from where the industry is now. Cost-plus contracts already cap industry returns, the way that rate-of-return rules used to cap Bell operating company earnings. And Pentagon auditors already pore over defense contractors' books.

The big difference is that if the process were formalized, companies would be guaranteed a stream of revenues. Right now, the rewards are limited, but the risks, as McDonnell Douglas investors found out, are huge. That's not attractive to investors. If both rewards and risks are limited, defense contractors could become the sort of safe, countercyclical investments that utilities used to be.

"PRIVATE ARSENAL." Another goal would be to create a sort of military Bell Labs within the arsenal companies to do the research to keep the U. S. military on the cutting edge. "What we need is a private arsenal system," says Herbert L. Fenster, a veteran defense industry lawyer. Whether we like it or not, he adds, such a transition "is happening before [our] eyes."

If a major threat emerges in decades to come and defense procurement rises, other companies will want in. Then the U. S. can consider deregulating defense again. After all, it was only when it was clear that telecommunications would evolve into a dynamic, competitive industry that deregulation made sense. At this point, the defense industry, now a cold war dinosaur, shows no such signs. Without a new approach, its extinction is inevitable.

Crock covers national security.

TURNAROUNDS

COMPAQ'S LONG ROAD BACK

"Everything to the Net" is the new credo–but is it enough?

What happens when you go from a career in corporate information systems to chief executive of a $38 billion computer company in just eight months? Ask Michael D. Capellas, who in July became the surprise replacement for ousted Compaq Computer CEO Eckhard Pfeiffer. "You think something magical happens and everything is all different," says Capellas. "It wasn't."

Wall Street agrees: Things still aren't different enough to convince investors that the troubled computer giant is back. At 27, Compaq's stock is up 50% from its nadir of 18 in October, but it's still off some 50% from its 12-month high. Analysts worry that Capellas, Compaq's former chief information officer, isn't moving fast enough to trim costs, fix the company's woes in the critical business-computer market, and reposition it as an Internet wizard. Says Merrill Lynch & Co. analyst Steven M. Fortuna: "I don't see enough going on there to support a buy recommendation."

So Capellas isn't taking a lot of time off to celebrate the new millennium. Instead, he's on a mission to reshape the company's strategy around the Net, devise a new distribution plan, and straighten out Compaq's unprofitable corporate-PC business.

NOTHING MAGICAL

CEO Capellas is giv all employees stock simplifying strateg improving products analysts remain wa

The 45-year-old Capellas ha progress in one key area: con workers and customers that th pany is grappling with the pr that mushroomed over the pa years as companies such as Del puter, IBM, and Hewlett-Pa grabbed market share in deskto puters and PC servers. Capell been in nonstop meetings wit ployees and customers—trying t members of both constituencie abandoning ship. He boiled the dled corporate strategy down to s objectives, printed up laminated and handed them to all employee priority: "Everything to the Inte

WEB STORAGE. Another morale b On Nov. 22, the Houston com maker gave each employee 200 of Compaq stock. That's hardly b of holiday spirit. Compaq must b more competitive with dot.com ups that hand out optio candy. It's also the qu way to convince emp they have a stake in an around. Says Capella [employees] don't beli the market won't belie

But Compaq still has way to go to catch up. las is trying to positi company's Tandem frames as the ideal machines fo cessing huge volumes of online actions. He also is recasting C storage systems as the perfect store information on the Web.

On the desktop, Capellas wa "redefine Internet access." In N ber, the company unveiled its ne line of corporate PCs, designed easy one-button connections to th To cut inventory costs, the iPaq is able in only a few models. What's the machines will only be availa rectly from Compaq.

That's more like Dell, bu enough: Compaq resellers still commission for booking the orde ing into profits. To convince Wall he's turning around the com Capellas may have to come up something different, if not magi

By Ira Sager in Ho

The Power of Communication

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EQUANT N.V.

US$811 million

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MORGAN STANLEY DEAN WITTER

July 1998

EQUANT

EQUANT N.V.

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December 1999

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BusinessWeek

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MANAGING VALUE AND GROWTH: TOOLS FOR AN INTERNETWORKED AGE

From March 8-10, 2000, Business Week magazine will host a prestigious corporate finance event in Aventura, Florida. A distinguished group of America's top corporate financial leaders will gather at the Turnberry Isle Resort & Club for a private, invitation-only forum to examine the ways in which CFOs can successfully manage for value and growth in an era of rapid, and often unpredictable, change. Conducted in a retreat-like setting, the forum encourages collegial interaction so that participants may gain the well-founded knowledge that is only derived from exchanging ideas, sharing experiences and engaging in compelling discussions.

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DITED BY MARK FRANKEL

/HAT AM I BID FOR HESE OLD LPs?

)W MUCH ARE YOU WILLING pay for your neighbor's edge clippers? Or an old ender? On Dec. 27, price-ie.com, the name-your-own-ice Web site, revealed ans to launch Perfect Yard-ale, a new Web site to hook individual buyers and sell-s. Although it may sound e the Net auctions of eBay Yahoo!, priceline.com of-rs a twist. Buyers list what ey want and how much ey're willing to pay, and ey must provide credit-card formation to show they're rious. If priceline.com finds willing seller, the two sides eet to close the deal. Un-e airline tickets, groceries, d other priceline.com sta-ples, buyers get a chance to rescind their offer and even return the goods within a week of purchase.

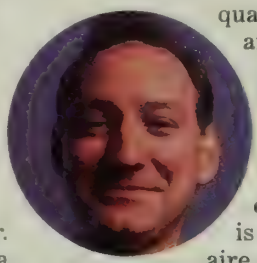
A HELPING HAND FOR FDA GUMSHOES

SINCE 1994, THE FOOD & DRUG Administration has been struggling to cope with abuses arising from the sale of drugs over the Internet. But the explosive growth of drugstore sites—now estimated at more than 400—has overwhelmed the agency. On Dec. 28, the Clinton Administration announced a plan to help the FDA keep up. The Administration will provide $10 million to identify and shut down sites that illegally sell prescription drugs without a doctor's order. The government will also levy fines of up to $500,000 for those convicted of selling drugs online without prescriptions.

HEADLINER: GREGORY MAFFEI

LOTS MORE MONEY TO COUNT

It's not a bad way to mark the millennium. After managing Microsoft money for three years as chief financial officer, Gregory Maffei, 39, fulfilled his longtime dream and landed a job as CEO of Canadian telecom outfit Worldwide Fiber. Then he left for a Jamaican vacation.



Maffei's number-crunching prowess helped turn Microsoft into a financial powerhouse. Since 1997 its market capitalization has quadrupled, to $600 billion, and its cash on hand has nearly doubled, to $19 billion. Maffei, who could not be reached for comment, engineered the program for delaying recognition of a chunk of Microsoft's sales each quarter, and amassed a rainy-day fund of $4 billion to smooth earnings. After six years with the company, Maffei is a multimillionaire. But he could step up into the billionaire leagues via Worldwide Fiber's eventual initial public offering.

Back at Microsoft, Maffei's vacant shoes will be filled by former head of corporate sales John Connors.

By Steve Hamm in New York

CLOSING BELL

RADIO DAYS

Sirius Satellite Radio, a pay-radio service for automobiles, shot up 17%, to 36⅛, on Dec. 27 after Blackstone Capital Partners invested $200 million in the New York company for a 10% stake. Launching next year, Sirius plans to offer 100 niche radio stations with CD-quality sound to drivers who subscribe. After the deal, the stock of rival XM Satellite Radio hit a high of 39⅝. It seems the market thinks there's nothing good to listen to in the car these days. Sirius closed Dec. 28 at 36⅝.

DATA BLOOMBERG FINANCIAL MARKETS

CHECK OUT THIS GROSS INCOME

IN THE ERA OF INTERNET mutual funds and 200%-a-year returns, who would have guessed that the highest-paid mutual-fund manager is a bond buyer? William Gross stands to earn $39.8 million a year over the next five years when his firm, PIMCO Advisors, is acquired by German insurer Allianz, according to papers filed with the Securites & Exchange Commission. Gross, perhaps the only marquee name in bond funds, is the country's best fixed-income manager, and keeping his services is key to the $1.9 billion acquisition.

THESE JAILHOUSES DIDN'T ROCK

MAYBE THE INMATES ARE IN charge of this institution: Just two years after spinning off from its prison management business so it could convert to a real estate investment trust, Prison Realty Trust announced a restructuring on Dec. 27 that included giving up its REIT status and merging back into Corrections Corp. of America. Prison Realty Trust, which owns the prisons that CCA operates, had seen its finances hammered by delays at new prisons and a liquidity squeeze as Wall Street turned cool to REITs. As part of the revamp, private investors led by the Blackstone Group will inject $350 million into the company.

HOW AOL WIPES OUT THE COMPETITION

COMPUTER OWNERS WHO HAVE upgraded to the new America Online 5.0 version of the online giant's software without paying attention during setup have been surprised to discover a feature they may not have wanted: It can wipe out previously installed Internet service providers. Users are asked if they want AOL to be their default ISP. Clicking "yes" disables existing ISPs on their computer. Consumer advocates say AOL should spell out the consequences better, but AOL says the question is clear, and clicking "O.K." rather than "yes" keeps original settings. About 7 million users have tried 5.0 with few gripes, says AOL.

ET CETERA . . .

- Nextel Communications dropped its $8 billion bid to buy NextWave Telecom.
- The Securities Industry Assn. says brokers' 1999 profits hit $12.6 billion, up 29%.
- Fairchild Aerospace agreed to be acquired by Allianz and a U.S. investor group.
- DaimlerChrysler's 1999 sales were up 12%, to $150 billion, thanks to strong car sales.

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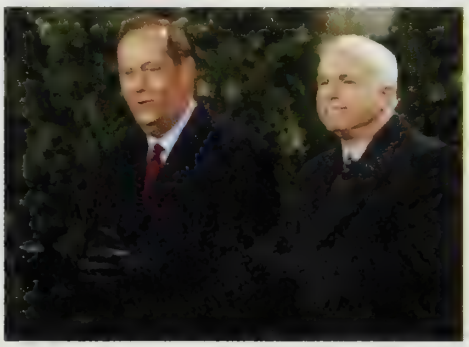
ITED BY PAULA DWYER

N CALIFORNIA, BRADLEY AND McCAIN OULD SLAM INTO REALITY

o the long-shot campaigns of Republican John McCain and Democrat Bill Bradley, California's Mar. 7 primary is a field of dreams—a chance to build on a breakthrough in w Hampshire and deliver a body blow to the front-runners. a great Frank Capra storyline. Just one problem: Even if insurgents win some early contests, California could sh their candidacies.

Vhile folksy retail politicking may work in tiny states New Hampshire, it takes oodles of money to score in Calnia, a state with 13 major media markets. Candidates st spend at least $1.5 million a week four weeks straight to make an imssion. Says Democratic consultant hard Ross: "Our town-hall meeting pens in front of a TV set."

On the GOP side, front-runner George Bush and publisher Steve Forbes, h of whom have declined federal ds, can saturate the airwaves. Even ugh he has gained strength, Arizona's Cain can't match this financial firever. "The character issue can work McCain here, especially his Vietnam' history," says a top state GOP strate-t. "I just don't think he'll ever have money to tell that story."



LONG SHOTS: *Do Californians care?*

Money isn't Bradley's most pressing concern. With a $20 lion war chest, his fund-raising pace is close to Al Gore's. t the Veep has other advantages: the endorsement of popr Governor Gray Davis, strong backing from the AFL-CIO dership, and solid support from blacks and Hispanics.

AUTY CONTEST. Bradley state coordinator Gale R. Kaufman ists that low-key organizing and Internet appeals will n out "an invisible army" of Bradleyites. But in reality, la- and minority votes could be decisive. Union households ount for a third of the voting-age population, and minori- s are 30% of the electorate. Plus, Gore has pols like Lieutenant Governor Cruz M. Bustamante, the state's most powerful Hispanic officeholder, working hard on his behalf.

To make matters tougher for underdogs, California's new open primary is a lot less open than it looks. While anyone can cast a ballot regardless of affiliation, the winner of the "beauty contest" isn't assured of any delegates. In fact, both parties will apportion delegates—367 for the Democrats, 162 for the Republicans—by counting only the ballots of registered party voters. Bradley and McCain, who run strongly with independents, will be at a distinct disadvantage.

Geography poses another problem. New York, Ohio, and 13 other states also cast ballots on Mar. 7. This run-everywhere scenario favors Bush and Gore, who can count on their organizational edge with governors and local elected officials to turn out voters.

Another complication: Californians aren't paying attention yet. According to Mark DiCamillo, director of the Field Poll, 40% of state voters don't know enough about McCain to venture an opinion. The figure is 30% for Bradley.

Does that mean the Golden State will turn to dross for the mavericks? Not necessarily. If either Bradley or McCain smites a front-runner early and often, Californians could shift allegiances. In fact, state voters often favor anti-Establishment pols, from Ronald Reagan in 1980 to Democrat Jerry Brown in 1976. "Most voters don't like Washington," says McCain aide Dan Schnur. "California voters like Washington even less."

When California moved its primary up, state pols figured for once they would make a difference in the Presidential selection process. Instead, they may end up ratifying the Establishment choices—and snuffing out the insurgents' dreams.

By Lee Walczak, Lorraine Woellert, and Richard Dunham

CAPITAL WRAPUP

MOKE SCREEN

Big Tobacco has long claimed that easures to curb smoking are the mar reason that U. S. tobacco farmers re suffering financially. But antitobacco rces have maintained that farmers re harmed far more by overseas prouction and imported leaf. Now, an griculture Dept. report sides with the ntismoking coalition. It says U. S. comanies not only are boosting overseas utput and cutting U. S. exports but lso buying leaf from such countries as razil, where output grew 28% in '99.

A TRADE-OFF AT THE WTO

▶ The White House and the European Union are both claiming victory in a recent decision by a World Trade Organization court. Europe challenged a 1974 U. S. trade law that has been used to pry open foreign markets by allowing retaliatory tariffs on imports. In its defense, the U. S. promised to get WTO permission before invoking the statute, as it did in cases involving EU curbs on American beef and bananas. That was good enough for the court, which on Dec. 22 ruled that the law can stand. But it left open a key question: Can Washington ever act unilaterally in trade disputes?

NET CANDIDATES

▶ Who is the most cybersavvy Presidential candidate? On Dec. 28, Senator John McCain hit the $1 million mark in donations over the Net. But he's still behind former Senator Bill Bradley, who now has $1.3 million in Net contributions. Veep Al Gore places third, with $900,000, and George W. Bush is a distant fourth, with about $180,000.

Special Report

THE MANA

THE MANAGERS TO WATCH

Begins on page 62

THE TOP ENTREPRENEURS

Begins on page 80

As we bid adieu to another year—not to mention a decade, century, and millennium—executives around the world have plenty of reasons to uncork the bubbly. At the end of 1999, much of the global economy remains robust, stock markets continue to defy both gravity and logic, and "e" and "dot.com" have become industries unto themselves. Clearly, the business world is doing something very right.

Yet leaving the booming economy aside, there's a group of executives who deserve to raise their champagne flutes a bit higher than the rest. BUSINESS WEEK's 25 Top Managers of 1999 pushed their companies—and often their stock prices—to new highs. Some stood out by making smart decisions at lightning speed. Others were more patient, relentlessly pursuing a crucial deal or taking the time to right a once-sinking ship. In a year marked by hype, these execs' accomplishments were legit.

It was the year the Internet went mainstream. So it's no surprise that many of BUSINESS WEEK's Top Managers came from the world of high technology or telecom munications. Cisco Systems Preside and Chief Executive John Chambe pulled further ahead in the networkin equipment business by courting cu tomers and buying companies with k technology he didn't already own. Ot ers, such as NTT DoCoMo Preside Keiji Tachikawa, capitalized on the co vergence of telecommunications ar the Net by launching an Internet se vice for mobile phones that has been huge hit.

Consolidators of fragmented or m ture industries also fared well in 199 Rather than facing competition alon many decided they could accomplis more as a team. CBS President and CE Mel Karmazin worked out a $80 b lion buyout by Viacom, and MCI Worl Com President and CEO Bernie Ebbe won a hot bidding war for Sprint. Y

DIGITAL ILLUSTRATION BY JOE CALVIELLO BW

TOP
ERS
OF THE YEAR

rtnering didn't always mean a ange in ownership: T. K. Koogle, CEO d chairman of Yahoo!, is in the envi- le position of being the gatekeeper of site any dot.com would kill to be as- ciated with.

Technology wasn't the only route to e top. Media maven Martha Stew- t scored with an October initial pub- offering that crowned her queen of me and hearth. And while parents on dgets rue the day that Nintendo of merica President Minoru Arakawa ve the green light to the infamous kémon, any kid will tell you that it as one of 1999's smartest moves.

For some of this year's high achiev- s, success was all the sweeter for llowing many bitter years. Texaco o Peter Bijur fought back from a cial discrimination scandal by re- mping his company's culture and improving minority hiring. And President and Chief Operating Officer Jim Curvey helped Fidelity Investments recover from a rash of staff departures. This year, Fidelity also overtook archrival Charles Schwab to become the largest provider of online brokerage accounts.

To choose the year's 25 Top Managers, BUSINESS WEEK surveyed our staff of 149 writers and editors in 25 bureaus around the world. Then we pared the list by making sure each candidate's financial and stock performance outclassed the field. The result? A solid group of winners—all of whom deserve a toast.

BusinessWeek ONLINE

For additional stories and interviews, click the Online Extras link on the January 10, 2000, table of contents at www.businessweek.com.

Minoru Arakawa
NINTENDO AMERICA

Bernard Arnault
LVMH

Arthur Blank
HOME DEPOT

Peter Bijur
TEXACO

Gordon Binder
AMGEN

Steve Case
AMERICA ONLINE

John Chambers
CISCO SYSTEMS

Jim Curvey
FIDELITY INVESTMENTS

Thierry Desmarest
TOTALFINA

Bernie Ebbers
MCI WORLDCOM

Tom Engibous
TEXAS INSTRUMENTS

Chris Gent
VODAFONE AIRTOUCH

Irwin Jacobs
QUALCOMM

Steve Jobs
APPLE COMPUTER, PIXAR

Mel Karmazin
CBS/VIACOM

Jim Kelly
UNITED PARCEL SERVICE

T. K. Koogle
YAHOO!

Ken Lay
ENRON

Jenny Ming
OLD NAVY

Thomas Siebel
SIEBEL SYSTEMS

Masayoshi Son
SOFTBANK

Martha Stewart
MARTHA STEWART OMNIMEDIA

Keiji Tachikawa
NTT DOCOMO

Jack Welch
GENERAL ELECTRIC

Yun Jong Yong
SAMSUNG ELECTRONICS

The Cisco Grown-Up

It's no wonder that **JOHN T. CHAMBERS**, the supersalesman of networking giant Cisco Systems Inc., can't wipe the grin off his face. In the five years since he has been CEO, Cisco has grown to ten times its 1994 revenues and profits. Credit Chambers' round-the-clock work ethic and obsession with customer satisfaction. He'll take a call at 2 a.m. if a customer's network is down. Wall Street is happy, too: Cisco qualifies as one of the great stocks of all time. After doubling in 1999, it is now the third most valuable company in the world, after Microsoft and General Electric. Translated into hard dollars, in just the last year, its value has grown by a stunning $180 billion.

How does he keep it up? Even the hypercompetitive Chambers, 50, admits to a bit of good luck. Cisco hit its stride just as the Internet revolution was swinging into full gear. It sells so-called routers and switches that direct data across the Net and around corporate networks, a business that grew 17% in 1999. "There's no substitu for being in the right industry at the rig time," he says.

But there's more to it than luck. Through blistering streak of some 17 acquisitions 1999 alone, Cisco has expanded into near every part of the networking industry. Char bers' goal is to change the way people "liv work, play, and learn" through Internet tec nology. And along the way, he wants to bui Cisco into a $50 billion company in five mo years.

To get there, Chambers is setting his sights beyond data networking. He has made himself into an e-commerce emissary, criss-crossing the globe to sell corporate leaders and government officials on the virtues of the Net. And he is moving Cisco into new markets. In 1999, Chambers plunked down almost $10 billion to acquire three makers of equipmment that sends Net data over fiber-optic lines. "We're leading a revolution," says Chambers. "The odds are in our favor to win." In his shoes, who wouldn't be smiling?

KEY ACCOMPLISHMENTS

- Shares rose 130% in '99, to about 105
- Sales up around 44%, to $14 billion
- Broadened Cisco into strategic businesses such as software, consulting, and fiber-optic communications

he Handyman

ou couldn't blame **ARTHUR M. BLANK** if he wanted to kick back and enjoy spending some of the billions he has amassed from ping build Home Depot Inc. into a $38 bil- n retailing juggernaut. But the 57-year-old nk, Home Depot's CEO since 1997, shows signs of slowing. Indeed, the avid runner l finds time to log 20 miles a week, some- es in his favorite shirt, appropriately em- zoned "There is no finish line." He shows same vigor at Home Depot's Atlanta head- arters. "If you listened in on one of our ff meetings, you'd think the company was in uble," jokes Blank. "We spend 80% of our e talking about things we could do better." While other mega-retailers such as Toys Us have hit a wall, Home Depot keeps ashing earnings records. And the growth is ning not so much m new stores but m a fat 10% sales e at the existing) outlets. Sure, strong con- uction and home- ovation markets lp. But some of Blank's new initiatives are also paying off. The chain last year began renting out tools and trucks, selling appliances, and providing on-the-spot loans of up to $20,000 for big-ticket home projects. His latest brainstorm: the compact Villager's Hardware stores, designed for downtown neighborhoods. Blank is also looking to expand in Europe and Asia. If those plans take off, maybe Blank will take a breather.

KEY ACCOMPLISHMENTS

- Shares rose 57%, to roughly $96
- Profits should jump 46%, to $2.3 billion for fiscal year 1999. Sales are expected to grow 25%, to $38 billion

ising Son

t's good to be **MASAYOSHI SON**. The scrappy Tokyo-based founder of Internet phenom Softbank is now worth about $4 billion. d in 1999 Son finally quelled critics who once wrote him off as just another slick venture capitalist who got lucky with bets on hot Web names such as Yahoo!

Son, 42, won over doubters by proving his Net investments could be parlayed into hugely promising alliances and joint ventures in overseas markets. So far, Son has already built a broad confederation of Internet-related affiliates in the U.S. and Japan, creating a sort of cyber-multinational.

Softbank-affiliated companies swap ideas, capital, and marketing to promote growth. Visitors to Yahoo!'s site in Japan, for instance, can also check out mortgages on E-Loan, purchase stocks on E*Trade or price software on Buy.com, all companies in which Softbank owns stakes.

Son's frenetic empire-building has dragged Japan out of the Web Dark Ages. From online trading to wireless technologies, he has ventures in virtually every segment of Japan's Internet economy, with stakes in 70% of the country's publicly traded Internet companies. At the same time Son is expanding across Asia and Europe, even as he sheds non-Internet assets, such as parts of publishing unit Ziff-Davis.

The grandson of Korean immigrants, Son relishes breaking the rules of Japan's ossified old-boy network. As a member of a despised minority, he struggled to get the loans he needed to launch Softbank in 1981. Now he gets regular face time with Prime Minister Keizo Obuchi. And investors are flocking to his money machine. With Softbank sitting on $30 billion in unrealized gains from its Internet portfolio, the stock has gone through the stratosphere. Not bad for a kid from the wrong side of the tracks.

KEY ACCOMPLISHMENTS

- Shares up more than 1,200%, to $795
- Created a powerful Net empire by forging links between his 100-plus Net companies in the U.S. and Japan

MANAGERS TO WATCH IN 2000

William Gates
MICROSOFT

The software giant has never been in a tougher spot—and neither has the world's richest man. With the government aiming to break Microsoft's hold on the PC industry and class actions piling on, Gates, 44, must show the negotiating skills—and the humility—to work out a deal.

Deborah Hopkins
BOEING

To sort out the aerospace giant's financial woes, new CFO Hopkins, 44, is closely scrutinizing production methods and costs at every unit of every division. If her reengineering succeeds, Boeing could keep profits steady as 2000's cyclical downturn in aircraft production hits.

Douglas Daft
COCA-COLA

Will things go better for Daft, 56, than they did for M. Douglas Ivester? Coke's respected Asia chief will take over the top job in April—and try to put the fizz back in Coke. Daft, an Australian, will get help from recovering global markets, but an edgy board will keep his honeymoon short.

WILLIAM MERCER MCLEOD

Old Navy's Skipper

As president of Gap Inc.'s Old Navy chain, **JENNY J. MING** oversees everything from the retailer's store operations to marketing and advertising. But just a few weeks ago, Ming, 44, was in her real element: bouncing around Old Navy's sample rooms studying items for back-to-school 2000.

Ming's passion for fashion has helped drive breakneck growth at Old Navy, which sells budget-priced jeans, T-shirts, and khaki pants to kids, teens, and young adults. Thanks to big bets on fleece tops and vests, Old Navy is now the biggest contributor to the parent company's overall growth, even as sales declined at the core Gap chain. Not too shabby for a chain that didn't even exist five years ago.

So how does Ming, who emigrated at nine from Macao to San Francisco, figure out which fashions will appeal to the notoriously fickle teen market? Besides picking the brains of her two teenage daughters, she travels frequently to trendsetting cities. few years ago in London she noticed th kids were starting to wear blue jeans in dar er shades. "So I thought, 'Let's darken o stonewash a little'," she recalls. "Now, v have a whole section of dark denim."

One of four managers handpicked by Ga CEO Millard S. ("Mickey") Drexler to laun Old Navy in 1994, she headed up its me chandising division for four years before bei promoted to president in April. Now, Min who favors stylish pastel pant suits and bas black herself, is under pressure to keep O Navy's momentum going. She plans to ope 100 locations in 2000 and is looking for ne ways to market merchandise. One idea: takir the babies and kids area, and slicing it mo finely into four sections for newborns, infant toddlers, and children. That would allo stores to sharpen their target marketin "We're a big business now," she says. "Th means we have to be a little more thoughtf and do more planning."

Ming is tight-lipped about what she's po ing over these days in the sample room Sorting through all the trends isn't easy, bu leave it to Ming to figure out just which on will be hits.

KEY ACCOMPLISHMENTS

- Same-store sales up a hefty 18% through October
- Just five years after launch, Old Navy will account for 35% of Gap's projected overall sales of $11.5 billion in 1999
- Opened 135 locations in 1999, bringing the total to more than 500

'iacompatible

The Henny Youngman of media moguls, **MEL KARMAZIN** is predictably deadpan about being singled out as a top executive in s field. "That sounds depressing," he says. Has the industry dropped that low?"

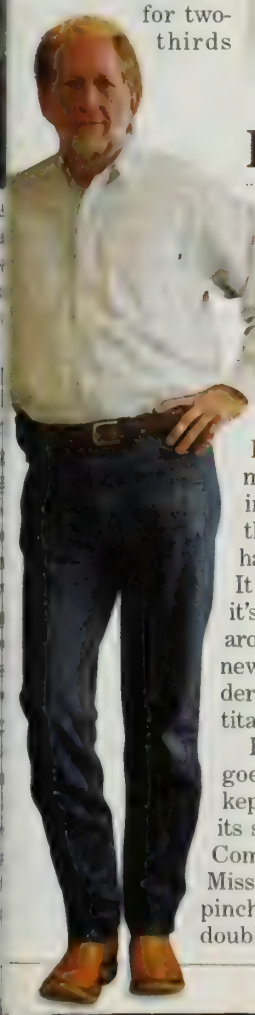
But the 56-year-old CEO of CBS Corp. has early had a banner year. For one thing, ere were the combined $11 billion acquisi-ons of billboard advertising company Out-oor Systems and TV-show syndicator King orld Productions. Then there was the turn-ound at the CBS television network and pid growth of radio business Infinity Broad-sting. Even better, CBS stock has doubled is year, to about 60.

But the real showstopper is Karmazin's erger of CBS with Viacom in a deal that will eate a media giant to rival Time Warner d Walt Disney. The mbined company will ve stakes in two st-growing media sinesses: radio and ble networks. Those eas will account for two-thirds of the earnings in what will be known as Viacom when the deal closes early next year. Karmazin shrugs off the coup. "Yahoo!'s stock did better in one day than we did all year," he quips.

The biggest Y2K question hanging over Karmazin's head now is how he'll manage to get along with Viacom Chairman and controlling shareholder Sumner M. Redstone. Karmazin will all but run the combined company, under a three-year contract. But Redstone will no doubt be keeping a close watch on Karmazin. "The only thing Sumner is questioning me on is that I achieve my goal, which is to make him richer than Bill Gates," he says. Ba-da-boom.

KEY ACCOMPLISHMENTS

- Doubled earnings at CBS, to $1 billion, on revenue of $8.6 billion
- Arranged the $80 billion merger of CBS with Viacom



Binge and Purge

Is there any limit to **BERNARD J. EBBERS'** appetite? In the past decade, the CEO of the company known as MCI WorldCom Inc. has taken over more than 60 rivals, including MCI. Now, the 58-year-old Ebbers has Sprint on his plate. It seems that whenever it's time for him to get around to managing his new assets, Ebbers orders up another telecom titan for lunch.

Even while the feast goes on, Ebbers has kept revenues and profits soaring at MCI WorldCom, based in Clinton, Miss. A notorious penny-pincher—he lived in a double-wide trailer until last year, when he built a house—Ebbers loves to trim the fat from corporate budgets. When he took over MCI in 1998, he cut the fleet of seven corporate jets to three, and banned virtually all company cars. That helped slash overhead from 28% of revenues at MCI to 23% at the combined companies.

There have been some bumps along the way. Last year, Ebbers lifted the stock by only 9%. And federal officials will likely demand tough concessions on the Sprint deal—if they approve it at all. But the jeans-clad executive isn't ready to call off the party. Since MCI WorldCom now gets nearly three-fourths of its revenue growth from international operations and data communications, expect it to be more active in Europe and Asia. Global consolidation is still rolling. And Ebbers is waiting, knife and fork in hand.

KEY ACCOMPLISHMENTS

- Profits grew an estimated 194%, to $3.8 billion, in 1999
- Turned toward more profitable data, Internet, and international operations

MANAGERS TO WATCH IN 2000

Carleton Fiorina
HEWLETT-PACKARD

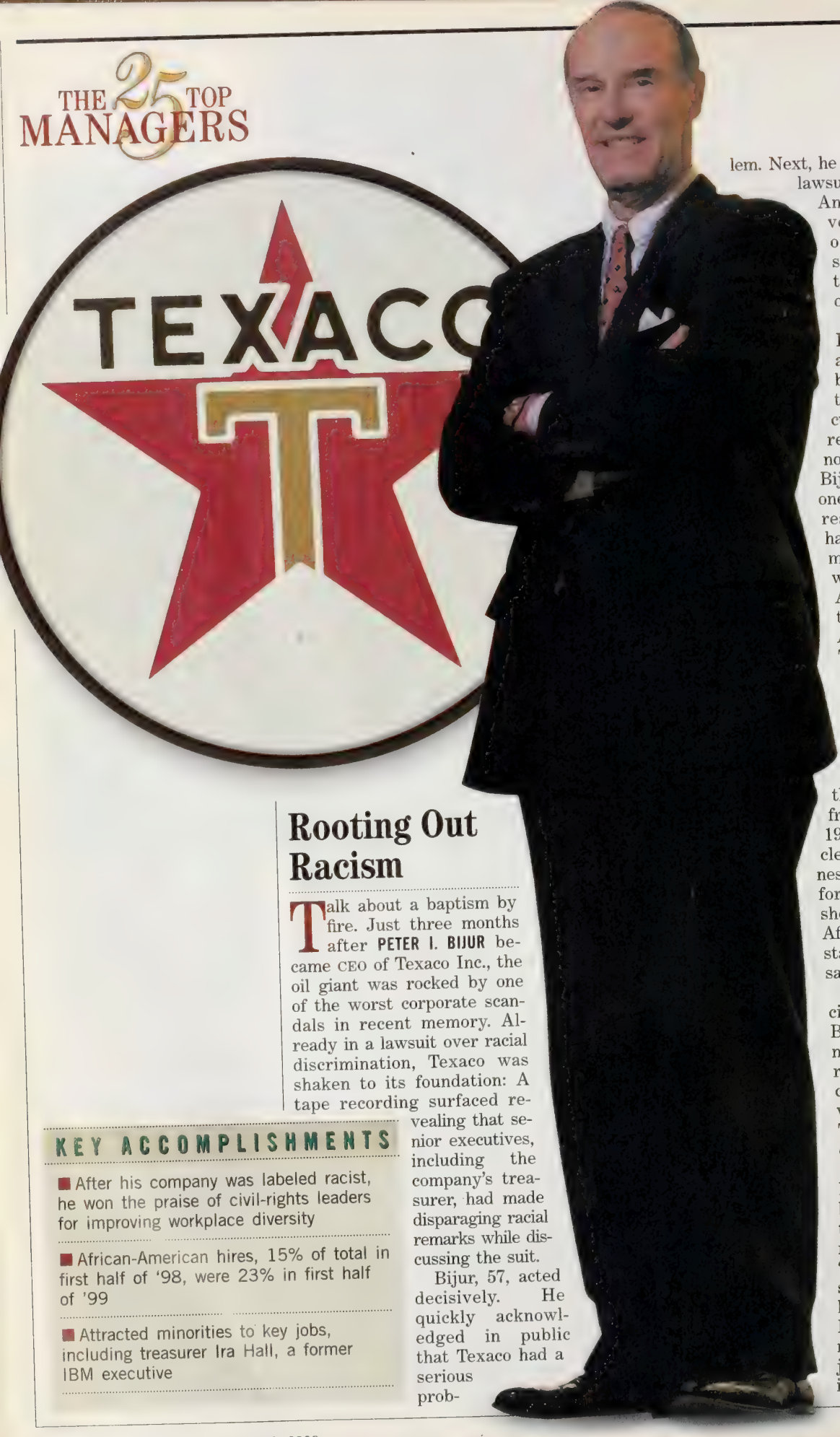
Fiorina, 45, is on the hot seat. Early moves, such as plans to make HP more customer-focused, won her praise, but now Fiorina faces the tough task of transforming HP's stodgy culture. She'll also have to make good on a promise for double-digit growth while appeasing in-house skeptics.

Jeffrey Immelt
GE MEDICAL SYSTEMS

Will he get the nod, or won't he? Thanks to the super-charged growth he has overseen as president and CEO of GE's Medical Systems unit, outsiders think Immelt, 43, is the favorite to replace the retiring Jack Welch. If he doesn't, plenty of other companies will woo him.

Lloyd Ward
MAYTAG

Ward, 50, has been through the wringer. In September, a month after becoming CEO, a huge earnings shortfall sent Maytag stock down 50%. Ward hit pay dirt as head of its appliance unit selling fancy washers, but now he must prove he can sell the cheaper ones, too.



Rooting Out Racism

Talk about a baptism by fire. Just three months after **PETER I. BIJUR** became CEO of Texaco Inc., the oil giant was rocked by one of the worst corporate scandals in recent memory. Already in a lawsuit over racial discrimination, Texaco was shaken to its foundation: A tape recording surfaced revealing that senior executives, including the company's treasurer, had made disparaging racial remarks while discussing the suit.

Bijur, 57, acted decisively. He quickly acknowledged in public that Texaco had a serious problem. Next, he promptly settled th lawsuit, for $140 millio And, following an i vestigation, he fire one executive ar stripped the othe two, already retire of their benefits.

But that wasn't a For 60 straight day after the scand broke, Bijur put asid the oil business to f cus on fixing what h realized was a pois nous workplace cultur Bijur insisted that eac one of Texaco's huma resources committe have at least one raci minority and or woman as a membe And he moved swift to hire prominen African Americans i Texaco's senior rank Bijur also tied bonuse to achieving diversit

It worked. Africa Americans made u 23% of the compa ny's new hire through June, 1999, u from 15% through Jun 1998. And once it wa clear Bijur meant bus ness, other improvement for minorities began t show up. Promotions African Americans, for in stance, doubled over th same period, to 13%.

Now, three years late civil-rights leaders sa Bijur has made Texaco model for ridding corpo rate corridors of dis crimination. "In man ways, Peter Bijur save Texaco," says the Rev erend Jesse Jackson.

Bijur knows he sti has a long way to g before he can claim vic tory in his battle wit racism in the workplace "It's never over," h says of his fight to over haul the Texaco culture But he can take som measure of satisfactio just knowing that Texac is on the right path.

KEY ACCOMPLISHMENTS

- After his company was labeled racist, he won the praise of civil-rights leaders for improving workplace diversity
- African-American hires, 15% of total in first half of '98, were 23% in first half of '99
- Attracted minorities to key jobs, including treasurer Ira Hall, a former IBM executive

VMH's Big Shopper

Who would have thought back in the fall of '98 that things would be looking so good today for **BERNARD ARNAULT**? As e Asian economic crisis torpedoed global mand for luxury goods, LVMH Moët Hen-ssy Louis Vuitton shares nosedived. But rather than hunkering down or cutting ck, CEO Arnault, 50, began to boldly trans-m the world's largest luxury-goods maker. the past year, he has launched the biggest quisition spree in the company's history, ending more than $1.1 billion to buy every-ng from Swiss watchmakers and trendy S. cosmetics companies to the venerable itish auction house Phillips. LVMH also is oving aggressively into mass retailing with Sephora cosmetics chain, which opened new stores in North America since 1998. e result: The Paris-sed conglomerate is ronger than ever. ith both sales and rnings again show-g double-digit gains, d margins on the se, the stock has ared back.

As if that weren't enough, Arnault has emerged as a key player in European e-business. In July, his family holding company set up a $500 million fund that has taken stakes in more than 20 Internet startups.

Thinking big is the hallmark of the coolly patrician Arnault, who once hoped to become a concert pianist but instead took over a bankrupt textile company and built it into the $8 billion-a-year LVMH. Now that's something worth raising a glass of bubbly over.

KEY ACCOMPLISHMENTS

- From just 23 in Oct. '98, LVMH's U.S. shares have vaulted 280%, to about 87
- Earnings should grow 17% in '99, to $744 million, on sales up 15% to 20%

Class Act at Yahoo!

In a year in which Internet frenzy hit new heights of hype and hoopla, **TIMOTHY A. KOOGLE** continues to build Yahoo! into the est of blue chips among Net companies. is year, Yahoo became the second in the ctor, after America Online, to join the Stan-rd & Poor's 500-stock index. Even better, Yahoo achieved that feat just three short years after going public, less than half the time it took AOL. It's a bow to Koogle's successful strategy of making Yahoo! a powerful magnet for advertisers, merchants, and consumers. As the largest Internet portal, with sites in 21 countries, Yahoo just keeps gaining momentum.

Early on, Koogle masterminded Yahoo's expansion from a simple search engine into a strongly branded consumer brand service. As a result, people visiting Yahoo this year almost tripled, to 105 million monthly. Revenues should hit $567.5 million, almost triple 1998. Even better, Yahoo is one of the few profitable Net companies.

Koogle's lead helped him maintain an unwavering determination to remain independent, which stood out starkly in 1999. Unlike weaker rivals such as Excite and Infoseek, which got bought by bigger media and access companies, Yahoo remains on its own. To keep Yahoo pushing ahead, Koogle engineered the purchases of home-page site GeoCities and audio and video service Broadcast.com. Late in the year, he also struck an e-commerce partnership with Kmart. And as consumers start accessing the Web through non-PC devices, Koogle is rapidly signing deals that will insure they can get Yahoo wherever they want. Koogle is sticking to the basics—while maintaining warp speed.

KEY ACCOMPLISHMENTS

- Shares have more than tripled during 1999, to about 400
- Yahoo should earn $131.6 million—a rare profitmaker in the Net world

MANAGERS TO WATCH IN 2000

Michael Armstrong
AT&T

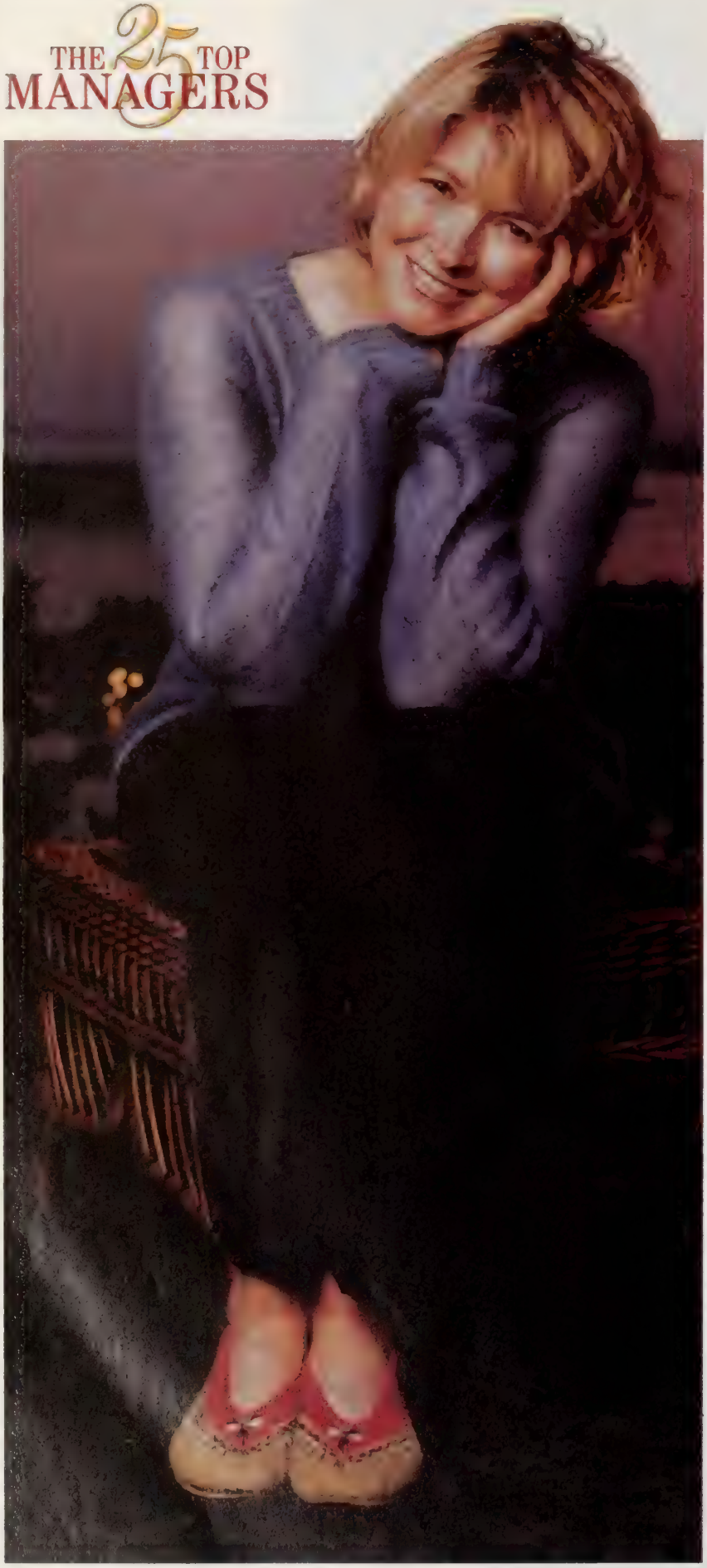
Since CEO Armstrong, 61, took over in '97, he's led one of the most ambitious turnarounds in history. He's invested a net $54 billion in cable companies and beefed up wireless. 2000 could bring the moment of truth, as investors discover if Armstrong can pull off his grand plans.

Jill Barad
MATTEL

Barad, 47, is not making it easy on herself. For over a year, Mattel's feisty CEO has sorely tested investors by making ambitious promises of growth, then failing to deliver. With the stock down nearly 60% since April, the pressure will be on Barad in '00 as never before.

Carlos Ghosn
NISSAN MOTOR

The 45-year-old COO may have the toughest job in the auto industry: bringing Japan's No. 2 carmaker—expected to lose $5.7 billion this year—back from the brink. He'll shutter five factories in Japan and cut 21,000 global jobs in three years. Will that suffice?



Martha's World

She has taught Americans to snip, se and gently sauté their way to the go life, but **MARTHA STEWART**'s best do-it-you self project won't appear in the pages of h glossy magazine. Behind the scenes, the fo mer Connecticut caterer has created a sprav ing media and merchandising empire th leaves larger rivals salivating with envy they rush to replicate her formula. And in O tober came the *pièce de résistance*: the work holic chairman and chief executive of Mart Stewart Living Omnimedia took her compa public and became a billionaire.

But Stewart, 58, is hardly taking a bre to enjoy the post-IPO party. Instead, sh trying to build an empire that will teach t masses how to organize weddings, partie and the perfect home—then sell the conve all the gear they need to do so. The go she says, is "to be the only place you need go to get things for your home." Besides h monthly magazine, Stewart produces rad and TV segments and a newspaper colum This year Kmart will sell more than $1 billi of Martha Stewart brand merchandise. Th there's a burgeoning Web site with more th one million registered users.

KEY ACCOMPLISHMENTS

- Created a media and merchandising giant—'99 sales should hit $224 million—that's now extending to the Net
- A splashy October IPO gave her empire a market cap of $1.1 billion

It's hard to believe that less than thr years ago, Stewart was working for Tim Warner and consulting on a few sheet pa terns for Kmart. Credit Sharon Patrick, a fo mer McKinsey consultant who is now compan president and chief operating officer. Sh helped create a plan to buy back *Martha Ste art Living* magazine from Time Warner, nanced in part through a deal with Kmart.

Free to run things herself, Stewart ha proven to be the consummate corporate manager. Now, however, she must make sure the Martha Stewart brand can survive without Martha Stewart. To do so, she is playing up her pool of in-house experts in various media outlets and looking at the possibility of a new TV series that she won't host.

Sounds risky? You bet. But Stewart knows she needs all the help she can get to keep up the growth. Armed with new capital and fresh talent, she's hoping to whip up her best year yet.

oracious at Vodafone

he 51-year-old British chief executive of Vodafone AirTouch PLC, **CHRISTOPHER C. GENT**, ended 1999 exactly as he began it—h a hugely ambitious acquisition attempt. ck in January, 1999, Gent shocked the ecommunications world with his $62 bil-n bid for U. S. rival AirTouch Communica-ns. Then, in November, Gent made an even re audacious move with a $128 billion hos-offer for German competitor Manne-nn. It's the largest hostile deal ever. In ween, he managed to launch a $70 billion nture with Bell Atlantic, creating the rld's biggest wireless empire.

Two years ago, Gent and Vodafone were le known. But Gent was one of the first and st aggressive European telecom players to out in front of a wave of consolidations eeping the industry the wake of deregu-ion. He put aside his bies of buying fine ne and collecting h century English furniture and went a U. S.-style buying ree. His ability to pull off bold deals, financed largely with stock, has vaulted Vodafone into the global big leagues.

Gent, who hails from the computer industry, has long been preparing for a center-stage role in the race to build the giant telecommunications providers needed for the online and wireless revolutions. An early believer in the mass-market potential of cellular, he was spreading the wireless gospel even before he joined Vodafone in 1985.

These days, investors are all ears. Vodafone's share price has more than tripled since late 1997. For Gent, the runup means more powerful currency in his battle to land Mannesmann. If he can do that, as many expect he will, Gent will emerge the undisputed king of wireless.

KEY ACCOMPLISHMENTS

- Gent's audacious deals have made Vodafone a global power in wireless
- Shares have skyrocketed 243%, to around $48, in two years

obs's Juggling Act

or **STEVEN P. JOBS**, CEO of Apple Computer Corp., 1999 was a brilliant second act. After restoring Apple's pride and profits 1998, he's poised to supercharge growth with hot new products. The candy-colored iMac and portable iBook are flying out of the stores, and Apple's stock is soaring.

The picture is just as bright at Pixar Animation Studios Inc., where *Toy Story 2* is setting box-office records. With three blockbusters in three tries, Jobs has created one of Hollywood's most profitable moviemakers. His 65% stake is worth a hefty $1.2 billion.

Call it sweet revenge for Jobs, 44, whose reputation seemed forever tarnished after his ouster from Apple in 1985. Besides dreaming up great products, he has shown he can execute. "I don't think people think of me as a manager," he says. "Once the visionary thing gets attached to you, it's hard to get rid of." Today, Jobs, who is consumed with details, from product design to advertising, runs Apple like a nimble startup. By streamlining production, Apple now operates with less inventory than Dell Computer.

At Pixar, where Jobs spends only a third of his time, he has proven an inspired dealmaker. With *Toy Story 2*, partner Walt Disney had ordered a low-budget, straight-to-video project. Convinced that kids hadn't had enough of Woody and Buzz, Jobs persuaded Disney to splurge on a theatrical release.

Can Jobs repeat the performance? It won't be easy. Pixar won't release its next movie until 2001. And Apple needs more hit products and an aggressive Net strategy. But Jobs isn't stopping. "If I didn't enjoy it, I'd be on a beach somewhere," he says. Why bother, when running Apple and Pixar is so much fun?

KEY ACCOMPLISHMENTS

- Apple's stock leapt roughly 140% in 1999, to about $99
- Operating profits should jump 70%, to $612 million for year ending next Sept.

MANAGERS TO WATCH IN 2000

Jeffrey Bezos
AMAZON.COM

The Web's premier e-tailer has kept sales booming with an aggressive push beyond books. And the stock is up a cool 6000% since its '97 IPO. But as losses mount, the pressure is on CEO Bezos, 35, to give investors a clearer sign of how and when Amazon will turn a profit.

Jean-Marie Messier
VIVENDI

The hard-charging French executive has skillfully honed Vivendi, once an unwieldy conglomerate, to focus on communications and utilities. But Messier, 43, remains far from his goal of making the company a pan-European media and Internet giant. Watch for him to seek an alliance.

Dennis Kozlowski
TYCO

Since October, questions about Tyco's accounting have sent the once high-flying stock skidding some 40%. An SEC probe is now underway. Voracious dealmaker Kozlowski, 53, denies anything is amiss. But he'll have to rebuild investor confidence before resuming his go-go ways.

Pokémon Patriarch

In 1997, Nintendo of America President **MINORU ARAKAWA** made the biggest bet of his career. Everyone said he was nuts to import a strange Japanese video game featuring 150 tiny, collectible monsters. Research showed that American kids hated it, and employees dismissed the game as too confusing. But Arakawa persisted—and hit the Pokémon jackpot.

Going with his gut has been Arakawa's standard operating procedure since founding Nintendo of America in 1980. Soon after the Pokémon craze began in Japan in 1996, he watched 100,000 people—some of whom had ridden the train two hours to get there—line up for a glimpse of new Pokémon characters at a festival. If U.S. kids showed half the enthusiasm, he f ured he'd have a winner.

Does he ever. In all its forms, Pokém includes video games, a movie, cards, and raft of toys and other merchandise. A Arakawa, who ruled against tailoring Pok mon for American kids, insisted on selling all. Pokémon sales for Nintendo of Ameri and its licensees have passed $1 billion sin its 1998 launch. Still, the 53-year-old Araka isn't smug. "To be honest, I still don't u derstand the game," he says.

Arakawa, a civil engineer by training, h made bold bets before. In 1985, Nintendo America was struggling as the operator such fading arcade games as Donkey Kon To revive the company, Arakawa import Nintendo's home-game console from Japa even though game makers Atari and Cole were struggling in the U.S. and the vide game industry was failing fast. The Ninten system was a huge hit, and many in the dustry credit Arakawa with reviving the U. video-game market.

The son-in-law of Nintendo Ch Executive Hiroshi Yamauc Arakawa at first shunned the far ly business in favor of real estate a construction. But when Yamauchi ask him to create an American unit, he jumped the chance to return to the U.S., where had once studied civil engineering at Ma achusetts Institute of Technology.

The shy Arakawa, who rare talks to the press, is praised employees as a consensus-build Top managers in Seattle me regularly around his des large enough to seat 18. February, however, wh Arakawa takes over North American cha man, he will have take on a mu more public ro For no Araka is just gl to hide b hind that tle monst Pikachu.

KEY ACCOMPLISHMENTS

- Scored huge hit by bringing Pokémon to U.S. over objections of co-workers and negative market research
- Pokémon, in all its myriad forms—cards, toys, video games and a movie—has racked up $1 billion in sales for Nintendo and its licensees in the U.S.

ive Wire Welch

When **JOHN F. WELCH** casually remarked last year that he will step down as chairman and CEO of General Electric 2001, the news generated the kind of glow- g comments usually saved for end-of-life sessments. Quipped the 64-year-old Welch: 's great to be alive d read your own ituary."

But in the year of e dot.com, the man ny regard as the o of the Century is ll delivering record sults. Driven by Welch's push into services, finance, and global markets, GE should again rack up double-digit sales and earnings growth. That's quite a feat for a $100 billion-plus sales behemoth.

GE is truly firing on all cylinders. Its engine unit landed a $100 million deal to develop a new engine for Boeing's longer-range aircraft. Its medical systems group inked a five-year $1.5 billion equipment and servicing pact with Columbia/HCA. GE Capital, the world's largest nonbank finance company, boasts investments in 45 e-business companies. And NBC has allied with a host of Net players to capitalize on the convergence of the media, entertainment, and technology industries.

But that's only the most obvious part of Welch's all-out push to embrace the Internet. His e-commerce initiative is already transforming the way GE interacts with customers. The company now sells everything from home mortgages to highly sophisticated medical-imaging machines via the Net.

Welch's biggest job this year, however, will be naming a successor. Whoever it turns out to be, Jack Welch's replacement will have one hard act to follow.

KEY ACCOMPLISHMENTS

- Profits should rise 15%, to $11 billion, on sales up 10%, to $110 billion
- With shares up 56%, to about 160, three-for-one stock split just announced

n the Case at AOL

Under Chairman and CEO **STEPHEN M. CASE**, America Online Inc. has become the 800-pound gorilla of e-commerce. AOL s 22 million subscribers, up 30% from a ar ago, and online merchants and advertis- s are tripping over one another to reach em. No wonder AOL scores record-breaking ofits quarter after quarter and the stock eps churning ahead.

But that's not enough for Case, 41. A quiet ategic thinker, he spent the past year inking als that extend AOL beyond the desktop, to screens, mobile phones, and handheld com- ters. Case invested $1.5 billion in Hughes ectronics Corp. to send AOL over satellite TV. rtnerships will put AOL on 3Com's Palm nputing devices and Motorola's new smart ones. To beef up AOL's downloadable Web usic, Case, a former singer for college rock

bands, bought two digital music startups. He also just agreed to pay $1.1 billion for MapQuest.com, which provides maps online. And a venture with Eastman Kodak Co. lets AOL users more easily send photos via e-mail.

With so many deals in the air, it would be easy for Case to lose focus. And indeed, he still has to show that AOL can grow as fast overseas as it has in the U.S. Investors are convinced that Case is on track to make AOL a household necessity—even if it's not necessarily on a PC.

EY ACCOMPLISHMENTS

- Shares roughly doubled to 78 in 1999
- Deals to broaden AOL's availability nd services will help boost income 02% this fiscal year, to $800 million

MANAGERS TO WATCH IN 2000

G. Richard Thoman
XEROX

Thoman has struggled to turn the copier giant into a digital player. A troubled sales-force reshuffle, Y2K worries, problems in Brazil, and stronger rivals all battered earnings. With the stock off two-thirds since May, investors may get tired of waiting for CEO Thoman, 55, to deliver.

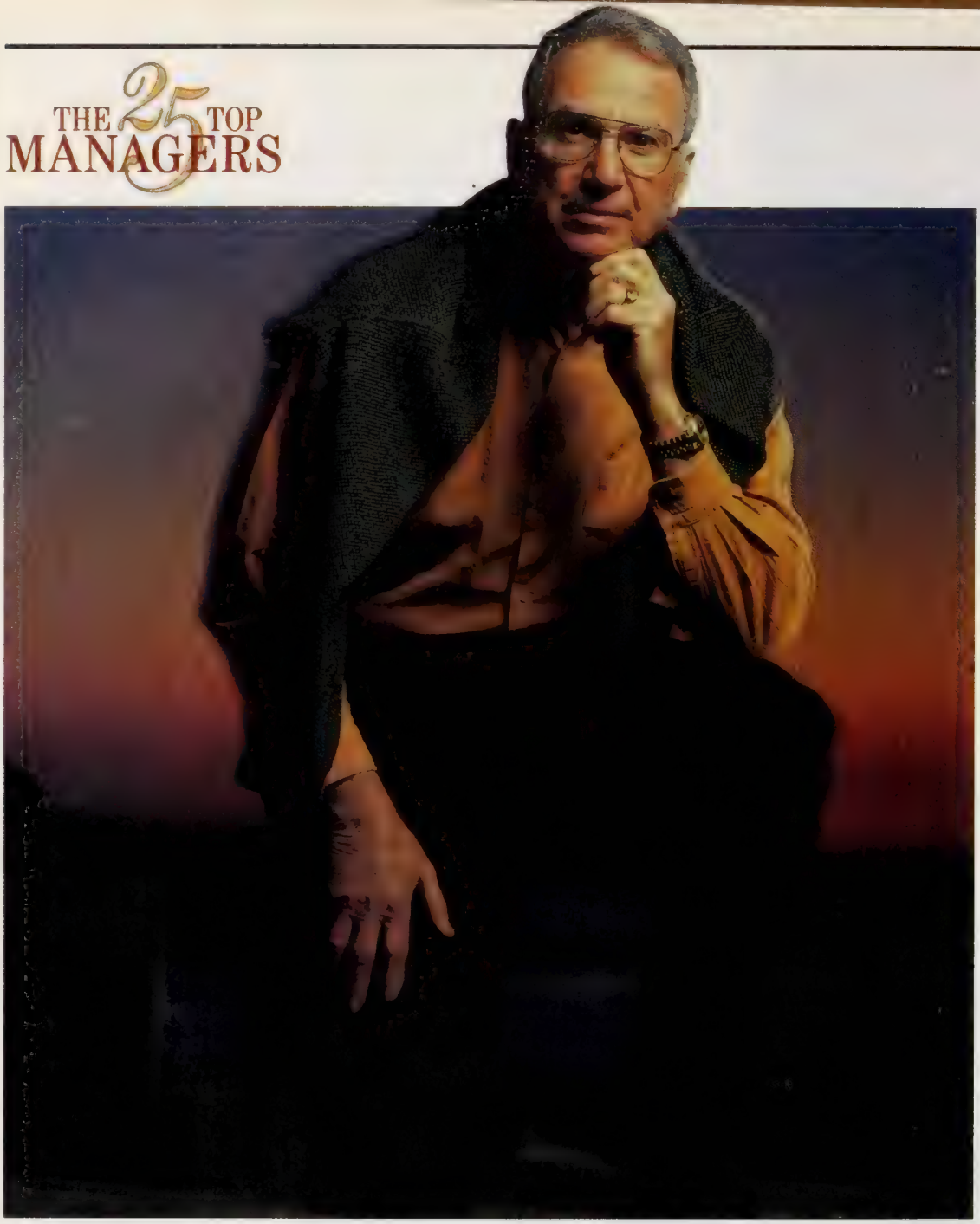
Edward Crutchfield
FIRST UNION

Can Crutchfield, 57, revive First Union's sagging stock, down 48% from its January high? With two of the hungry banker's latest deals—the $16 billion CoreStates Financial takeover and the $2.1 billion buyout of The Money Store—gone sour, he must learn to manage as well as he does deals.

George Shaheen
WEBVAN

Shaheen, 55, shocked colleagues by chucking a 30-year career at Andersen Consulting last year to head Internet grocer Webvan. But disappointing online grocery sales so far raise doubts about this e-concept. Shaheen will have to show he has what it takes to lead a dot.com upstart.

THE 25 TOP MANAGERS



Qualcomm's Wizard

If anyone deserves a millennial toast, it's **IRWIN M. JACOBS**, founder and chief executive of wireless technology company Qualcomm. A decade ago, skeptics dismissed his plan to commercialize a new and powerful, yet technically complex, digital wireless technology. Now, Jacobs, a 66-year-old former Massachusetts Institute of Technology engineering professor, is having the last laugh.

Thanks to a patent agreement, Jacobs' technology is set to be in the guts of tens of millions of phones for years to come. That's one big reason why Qualcomm's stock—which went from $25 to about $520—was the best pe former in the Sta dard & Poor's 5 stock index for t year.

Jacobs has been business since 19 when he started company to devel advanced milita communications. founded Qualcomm 1985 and has be relentlessly pushi his digital techno gy ever since.

Fast-talking a articulate, Jacobs h made "some of t greatest signal-pr cessing breakthroug of the century," sa Dwight Decker, cha man and CEO of riv chip-design hou Conexant System Decker adds that J cobs is also "a wizard."

Qualcomm's tec nology is alrea used in about 50% new digital handse sold in the U.S. B carriers using it i clude such heavy-h ters as Sprint a Airtouch.

Now, Qualcomm prospects are bett than ever. In 199 Jacobs won a critic legal standoff wi Swedish phonemaker Ericsson. The agre ment paves the way for Qualcomm to recei fat royalties from European equipment ma ers—the leading players in the global teleco market. Why? Because Qualcomm's technol gy has been adopted as one of three ne standards by the International Telecomm nications Union for a new generation of dig tal wireless phones.

Qualcomm shares also got a boost whe Jacobs shed phone-manufacturing operatio to concentrate on high-margin design and r search. His 3.7% stake in Qualcomm is no worth about $2.7 billion.

Even so, Jacobs and his wife, Joan, still li in the same modest ranch house they boug in 1966, when Jacobs was a professor. Aft the kind of year he has had, the Jacobs fami can well afford to splurge on a new house— just about anything else they want.

KEY ACCOMPLISHMENTS

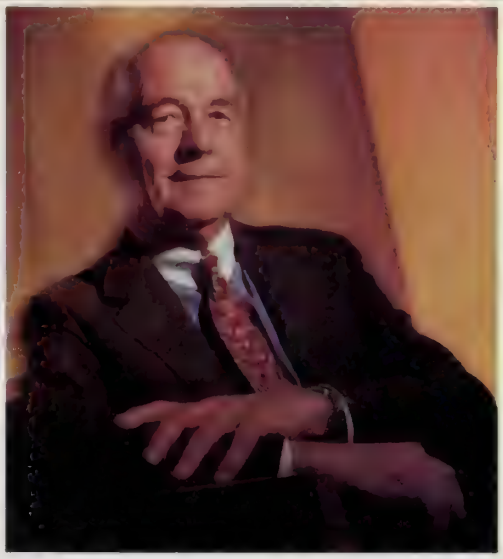
- Shares up roughly 1,900% in '99
- Profits up 85%, to roughly $200 million
- Developed digital technology that was adopted in 1999 as a global standard for next-generation wireless cell phones

'ixing Fidelity

A couple of years ago, **JAMES C. CURVEY**, then head of Fidelity Investment's venture-capital unit, led an emotional manage-ent meeting. The financial-services giant as stumbling badly, its funds lagging and in-stors and managers alike bailing out. Cur-y went around the room critiquing the per-rmance of one high-ranking executive after other. It was painful, but the exercise lped convince CEO Edward "Ned" Johnson l that Fidelity's organizational structure as flawed—and that Curvey was the man to it. Shortly afterward, he was appointed ief operating officer and president.

It's a move that's paid off big. Fidelity ghted itself last year, thanks to Curvey's o-to-bottom reorganization. Assets are up, d Fidelity's online brokerage unit surged ahead of Charles Schwab with an ad blitz and upgraded offerings. Nearly every top position turned over as Curvey focused on eliminating internal conflict. Bonuses are now based in part on how well executives work together. His boldest move: appointing General Counsel Robert Pozen, who had no investment experience, to oversee the mutual-fund unit. Defections stopped, and performance edged upward.

Despite his successes, the 64-year-old Curvey is not likely to get a promotion. Johnson's daughter, Abigail, 38, is serving as Pozen's top aide and preparing to replace her 69-year-old dad. Thanks to Curvey, the company she inherits should be alive and kicking.



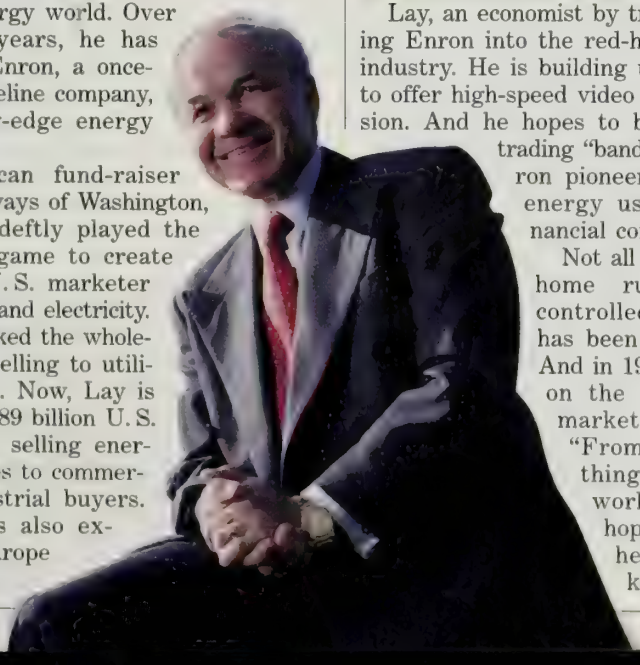
KEY ACCOMPLISHMENTS

- Reduced internal conflicts and spurred growth through management changes
- Increased assets under management by 14%, to $871 billion, through Nov. 30

'he Dynamo at Enron

Enron CEO **KENNETH L. LAY** doesn't like to put on airs. He won't take the express elevator to his 50th floor office in Houston. Instead, he usually rubs shoulders with e rank and file. But the unassuming Lay, ised on a farm in Missouri, is a towering gi-t in the energy world. Over e past 15 years, he has ansformed Enron, a once-ruggling pipeline company, to a cutting-edge energy werhouse.

A Republican fund-raiser vvy in the ways of Washington, ay, 57, has deftly played the eregulation game to create e leading U.S. marketer natural gas and electricity. rst, he attacked the whole-le market, selling to utili-es and cities. Now, Lay is asing the $189 billion U.S. tail market, selling ener-and services to commer-al and industrial buyers. nd Enron is also ex-nding in Europe d Asia.



KEY ACCOMPLISHMENTS

- Earnings should jump 32% for 1999, to $902 million, on revenue of $42 billion
- Shares rose about 50% last year, quadruple the S&P Natural Gas Index

Lay, an economist by training, is now taking Enron into the red-hot communications industry. He is building up his own system to offer high-speed video and data transmission. And he hopes to build a market for trading "bandwidth," just as Enron pioneered the trading of energy using innovative financial contracts.

Not all of Lay's efforts are home runs. An Enron-controlled water business has been a disappointment. And in 1998, Enron gave up on the residential power market in California. "From time to time things aren't going to work out as you hoped," says Lay. But he's not afraid to keep pitching.

MANAGERS TO WATCH IN 2000

Naoyuki Akikusa
FUJITSU

Since taking over as president in 1998, Akikusa, 61, has struck a slew of deals to position Fujitsu as Japan's biggest Internet service provider. But with e-commerce expected to take off in Japan, Akikusa faces a tough race keeping ahead of rivals NEC, Hitachi, and IBM Japan.

Geraldine Laybourne
OXYGEN MEDIA

Laybourne, 52, is betting big that the February launch of her women's cable channel and the redesign of Oxygen's Web site will exploit an underserved market for women. She has major-league backers, but the pressure is on the former Nickelodeon exec. Will anyone be watching?

Jacques Nasser
FORD MOTOR

Nasser, 52, had a busy first year as president and CEO. He bought Volvo and other businesses, recruited high-level outsiders, announced a global restructuring, and dove into e-commerce. Now Nasser is looking to make the moves pay off as auto sales ease from 1999's record pace.

Texas Turnaround

To look at him, you'd hardly peg **THOMAS ENGIBOUS** as an iconoclast. The stoc Texas Instruments Inc. chief executiv who despises neckties, blends right into crowd of chip engineers. That's where started his career. But his vision is far fro modest: Since becoming CEO three years a after the sudden death of predecessor Jer R. Junkins, Engibous has reinvigorated t ailing electronics giant and turned it into o of the hottest plays in semiconductors.

Credit Engibous, 46, for a daring strateg and skillful execution. When he took charge venerable TI, it was a sprawling maker chips, calculators, laptop PCs, military ele tronics, and engineering software. But re enues and profits peaked in 1995 at $11.4 b lion and $1.1 billion respectively, and the started a sickening skid.

Engibous, who joined TI in 1976 from gr school at Purdue University, engineered turnaround by betting the company on a emerging class of chips known as digital si nal processors (DSPs). The chips crunch va streams of data for an array of digital ga gets, including modems and cellular phone At the same time, Engibous shed billions dollars worth of assets to focus on DSPs, whi he calls "the most important silicon technol gy of the next decade."

His timing was impeccable. DSP sales cou surge 32% in 2000, on top of a 25% gain '99. TI now commands nearly half of the $4 billion global market for the most advance DSPs, and it's the No. 1 chip supplier to t sizzling digital wireless phone market. B competition is heating up from Lucent and I tel, which will unleash a new DSP chip late this year.

Engibous travels constantly and rises b fore 4 a.m. to stay in touch with custome and employees. An ardent sports fan wh played hockey at Purdue, his speeches a laden with sports metaphors. And after coac ing his two sons' soccer and baseball tean for years, he relishes his role as TI's hea coach. His plain-spoken style and bold gam plan are paying off big.

KEY ACCOMPLISHMENTS

- Jump-started growth by focusing on key digital signal processing chip market
- Profits should more than triple in '99 to about $1.4 billion, on sales of $9.3 billion.
- Stock skyrocketed about 150% in 1999 to a recent $108

mgen's Ace

or most of his 11-year run as CEO of Amgen Inc., **GORDON M. BINDER** has had to listen as Wall Street carped that the otechnology company was a two-trick pony th no hot new drug prospects. But Binder oomed that pony into a racehorse—and set mgen stock on the fast track.

Binder, 64, came to Amgen in 1982 as a fi- nce expert to raise money for the startup. e succeeded admirably. But Binder—who akes sure to schedule his work around the nual company tennis tournament—also arned the science of biotechnology. And ce taking over as CEO in 1988, he has come with creative ways to keep Amgen from tering. He used smart legal tactics to fend challengers to the near monopolies held by ogen, a 10-year-old drug used to treat ane- a in dialysis pa- nts, and Neupogen, years old, which hts infections during emotherapy. Binder o pushed the mar- ting envelope. Am- n hires nurses to rk with oncologists and encourage them to use Neupogen to prevent as well as treat infections. The payoff: double-digit gains in both sales and earnings.

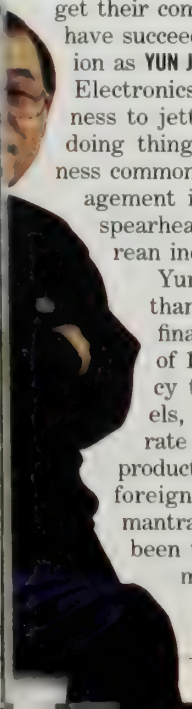
Now Amgen finally has some powerful follow-up drugs. It is seeking federal approval for a longer-acting version of Epogen as well as the green light for Kineret, a drug that treats rheumatoid arthritis.

However, Binder won't be around to take them to market. Next May, he'll turn Amgen over to his longtime No. 2, Kevin Sharer. Binder plans to dabble in venture capital and help one of his two sons start up a company. Once a finance guy, always a finance guy.

KEY ACCOMPLISHMENTS

- Boosted stock price by around 100% last year, to about $54
- Earnings up roughly 26%, to $1.1 billion, on 21% sales hike, to $3.3 billion

verhauling Samsung



These have not been easy times for South Korean executives. Two years after the worst economic meltdown of the post rld War II era, many are still struggling to get their companies back in gear. Few have succeeded in as dramatic a fashion as **YUN JONG YONG**, CEO of Samsung Electronics. His secret? A willingness to jettison decades-old ways of doing things in favor of basic business common sense and Western management ideas. By doing so, he is spearheading a revolution in Korean industry.

Yun, 55, had been CEO less than a year when the Asian financial crisis hit in the fall of 1997. With Korea's currency trading at depressed levels, many of its giant corporate *chaebol* were cranking up production in an attempt to flood foreign markets. After all, the mantra in South Korea had long been to build market share, no matter what.

But Yun, a 30-year Samsung veteran, broke with tradition. He slashed production of TVs and other appliances, cut a third of Samsung's workforce, and streamlined inventories, shaving $3 billion in costs and accounts-receivable. Next came a restructuring. Samsung sold or spun off dozens of companies unrelated to its core businesses and wrote off investments in such money losers as Samsung Motor and computer maker AST. Most important, Yun has diversified into new high-margin businesses. Back in 1995, the company had been dependent on memory chips for 50% of sales. That's now down to 20%, with the rest spread over telecom equipment, liquid-crystal displays for computers, and other high-technology gear.

Today, Samsung is stronger than ever. Sales and profits are soaring. Well positioned for the digital revolution, Samsung may soon rank alongside the likes of electronics star Sony. As for Yun, he has emerged as a model executive for a still struggling Korea.

KEY ACCOMPLISHMENTS

- Profits up tenfold in '99, to $2.4 billion, on sales up 24%, to $22 billion
- Share price up more than 200% in 1999

MANAGERS TO WATCH IN 2000

A. Barry Rand
AVIS RENT A CAR

When he left Xerox last year, Rand vowed to do bigger things. In November, he landed a job as chairman and CEO of Avis Rent A Car. Now Rand wants to take on leader Hertz by selling new services. Forget the Avis motto to try harder—Rand needs to deliver results.

Meg Whitman
eBAY

Despite potent new competition from Yahoo! and Amazon.com, CEO Whitman, 43, has kept the fast-growing online flea market on top. Her biggest challenge: coping with eBay's popularity. If she can't stop the frequent site crashes, Whitman may find eBay's lead going, going, gone.

Christopher Galvin
MOTOROLA

Can Galvin, 49, complete the turnaround at Motorola? Its 1999 comeback in digital phones impressed Wall Street, pushing shares up some 140%. But Galvin still has work to do. First on the priority list: finding a solution to Iridium, the struggling satellite venture.

Out of the Box at UPS

From its employees' brown uniforms to its boxy vans, United Parcel Service hardly looks like an icon of the New Economy. Don't be fooled. Chief Executive Officer **JAMES P. KELLY** has repositioned the UPS delivery folks as foot soldiers of the dot.com revolution. "We're a 92-year-old company that's reinvented itself several times, and we're doing it again," he says.

Kelly, 55, has lived through many of those reinventions since he started as a UPS relief driver for the 1963 holiday season. Working his way through night school at Rutgers University, Kelly decided to become a full-time driver when he realized it paid double what he was making as an accountant. From there, he rocketed up the management chain, handling labor relations and other divisions before becoming CEO in 1997. These days, the golf fan is transforming the once-stodgy company into a Net darling by spending big on new technology and expanding abroa

The recast UPS is more than just a car hauler. Kelly has organized the company manage an array of logistics systems for i dot.com customers, from managing invento to performing customer service function Some five years ago, Kelly saw the power the Internet as a sales channel and made it key focus. Now UPS's vast array of delive options makes it a one-stop shop for small a large customers alike.

Kelly's big bets are paying off. Alread UPS handles 55% of all Net purchases, 32% for the U.S. Postal Service and 10% f Federal Express. Wall Street is happy, to The privately held UPS sold 10% of its sto in November, the largest IPO ever.

Still, Kelly admits a challenge is preservi UPS's collegial atmosphere, at an outfit whe loyal workers say they bleed brown. While Kelly is happy that the IPO enriched employees, the culture, he says, "is the thing we talk about more than any other issue. It's the last thing we want to screw up." To avoid creating a short-term mentality, Kelly won't post UPS's stock price inside headquarters. That approach should keep UPS delivering the right stuff.

KEY ACCOMPLISHMENTS

- Oversaw $5.5 billion IPO in November. Shares are up 35%, to around 67
- Made UPS the leader in e-commerce deliveries, with 55% market share
- Profits should grow 20% in 1999, to $2.3 billion, before special charges

ANA STATES SABA

Total's Empire Builder

Until **THIERRY DESMAREST** began playing in the oil patch, the term "Big Oil" was reserved for giant American and British ayers such as Exxon, Texaco, or BP. Conti-ental Europeans couldn't compete. They ere just too small.

Now, thanks to a series of brilliant strategic oves, 54-year-old Desmarest has made Paris-ised TotalFina a real contender. Last July, esmarest astounded the oil industry—and e clubby world of French big business—with $44 billion hostile bid for oil group Elf Aqui-ine. Coming on the heels of the $12 billion ac-uisition in early 1999 of Belgium's Petrofina, e deal with Elf transforms Total into the orld's fourth-largest oil and gas company.

Not bad for a courteous and soft-spoken gineer known in the company as "le Petit Prince." Desmarest earned his laurels far from the industrial elite in Paris. In countries such as Venezuela and Algeria, he added huge amounts of cheap oil and gas reserves to Total's inventory as head of exploration and production. Then, within weeks of becoming CEO in 1995, Desmarest inked a landmark deal in Tehran making Total the first foreign oil company to produce in Iran since 1979.

What's next for Desmarest? He's moving quickly to quell the public outcry following a big oil spill off the coast of France, and will likely be on the prowl again before long. Wherever he strikes next, Desmarest wants to be top dog in Europe. Big Oil, make room for one more.

KEY ACCOMPLISHMENTS

- Acquired rival French oil company Elf Aquitaine for $44 billion
- Shares up about 35% in '99, as profits expected to grow 20%, to $3.1 billion

Casting Japan's Net

A 60-year-old engineer with a mobile phone company hardly seems like an apt candidate to lead an Internet revo-tion. But that's exactly what **KEIJI TACHIKAWA** is doing. He took over as president and chief executive of NTT DoCoMo, the wireless unit of Japan's former phone monopoly, in June, 1998. Since then, Tachikawa has introduced a new wireless Net access service that promises to catapult Japan to the front ranks of the mobile Internet.

Tachikawa has forged a reputation as a nimble, open-minded manager who isn't afraid to hire experienced outsiders. He joined Nippon Telegraph & Telephone Corp. in 1962, straight out of the University of Tokyo's engineering program. Tachikawa says it was in New York during the late '80s, where he set up NTT America, that he adopted a more entrepreneurial style: "I learned that it's very easy to form a company in America. All you need is a manager, a secretary, and $200, and you're in business."

By the time he arrived at DoCoMo, it was clear the carrier needed an Internet access service. The result was i-mode, an easy-to-use mobile Net service that has taken Japan by storm since its February launch. Users purchase an i-mode handset and pay DoCoMo $3 a month for e-mail service and to display Web text. With 3 million i-mode users already, DoCoMo can expect to ring up even more profits.

Since Tachikawa took it public in late '98, the stock has soared. Now he's pushing to deploy technology for even higher-capacity wireless. This is one ex-bureaucrat who isn't sitting around waiting for the phone to ring.

KEY ACCOMPLISHMENTS

- Turned "i-mode" Net access service for wireless phones into smash hit in Japan
- Since Oct. '98, IPO shares are up 290%, to about $37,000

MANAGERS TO WATCH IN 2000

Carlos Gutierrez
KELLOGG

CEO since April, Gutierrez, 46, has wasted little time trying to bring some snap, crackle, and pop back to the cereal maker. He has launched ad campaigns and aggressively courted retailers. But until he delivers significant sales growth, the share price will likely remain soggy.

Klaus Esser
MANNESMANN

Esser, 52, helped turn the German pipe manufacturer into a hot telecom company whose stock has risen ninefold in five years. Now he must repel a $128 billion hostile takeover bid by Vodafone AirTouch. Win, he's Europe's premier mobile-phone mogul. Lose, he's out of a job.

Michael Bonsignore
HONEYWELL

Can CEO Bonsignore, 58, fill the shoes of his highly regarded predecessor, Larry Bossidy? Now heading the manufacturing giant formed by the merger of Bossidy's AlliedSignal and his Honeywell, Bonsignore must blend divergent cultures while meeting robust earnings expectations.

Supersalesman Siebel

You won't see any fine art on the walls at Siebel Systems Inc. in San Mateo, Calif. Instead, Chief Executive Officer **THOMAS M. SIEBEL** has decorated the place with photos of people who have bought the company's sales-management software. He sends out engineering SWAT teams to work around the clock when a problem comes up. He has even tied commissions and bonuses to how clients feel they're treated.

While this level of obsession may seem over the top, it's all part of Siebel's campaign to make employees focus with laser intensity on customer satisfaction. "We're in the business of selling customer-service software, and we try to be the exemplar of that philosophy," he says.

No wonder Siebel, 47, now runs the hottest company in one of the hottest software markets. He dominates a segment expected to grow 50% a year, to $16 billion by 2003. Siebel's sales jumped nearly 80% last year. And in the future, as he continues to add products that power e-commerce sites, Siebel could gain star status i the industry.

He has already got the ego. Siebel poin out that smaller players such as Vantive ar Clarify stumbled and sold out in 1999. Large software companies like Germany's SAP ar late to market. "Our competitors' executio has been laughable," Siebel scoffs. He rubbe it in, too—by hiring more than 27 stars fro SAP, which prompted an ongoing lawsuit. Bu he won't back off. "It's a free country, so w continue to hire their people," he says.

For Siebel, victory is sweet. He starte the company six years ago in the "crummiest space in East Palo Alto, Silicon Valley's low rent district. Most employees took stock op tions in lieu of salary, allowing him to spen only $1.8 million in the two years it took t build the company's first product. He got th cash from friends and by selling Gain Tech nologies, a database software company o which he was CEO and a shareholder.

Today, Siebel owns about 9% of Siebel Sys tems, and he's worth more than $1.5 billion But he still courts risk. This is the vetera software executive's third startup. And whil the father of four no longer hang-glides, h still likes to ski fast on steep slopes whe he has a chance. But that's about the onl time his trajectory is downward.

KEY ACCOMPLISHMENTS

- Increased stock price more than 400% last year, to about $88
- Profit up over 150%, to around $108 million, on sales up 79%, to $700 million
- Landed key deal for IBM to push Siebel's customer-relationship software

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THE TOP ENTREPRENEURS

■ *Whether in high tech, low tech, or no tech, these upstarts showed that a good idea alone isn't enough. Turning inspiration into a good business is all about timing*

Red Hat Trick

Bill Gates, watch your back. Here comes **ROBERT F. YOUNG**. In just four years, the former newsletter publisher has made his Red Hat Inc. the first name in the burgeoning Linux software movement. It's not only a growing threat to Microsoft; it was also one of the hottest IPOs of 1999. With shares up roughly 1,800% since August, Young, 45, now sports a net worth of more than $2 billion to go along with his trademark red fedora. His masterstroke was securing early support from such heavyweights as Compaq, Oracle, and IBM. Though revenues were only around $18 million in 1999, they're projected to soar to $43 million next year. Even better, losses should shrink from $12 million to $5 million. That's clearly enough for Wall Street, which is betting Red Hat will stay red hot.

Bags of Money

Most women put their money in their handbags—that's where trendy designer **KATE SPADE** is making hers. Spade's line of elegant and whimsical bags, which range from pink herringbone carryalls and velvet tiger-print shoppers to simple nylon totes, are among fashion's hottest must-haves. A former *Mademoiselle* magazine editor, Spade, 37, and her husband, **ANDY**, 37, started Kate Spade in 1993 with $35,000 of his 401(k) savings. Midwestern innocence meets European runways in Kansas City native "Katie," who favors hoop skirts and kitten heels. She has scored big by making handbags fashionable as well as functional. Last year, sales doubled to $50 million as Kate Spade branched out into stationery, shoes, and a line of men's bags from creative director Andy. In February, the company pocketed $33.6 million when Neiman Marcus Group Inc. bought a 56% stake.

PHOTOGRAPHS BY MARC BRYAN-BROWN, JASON M. GROW/SABA

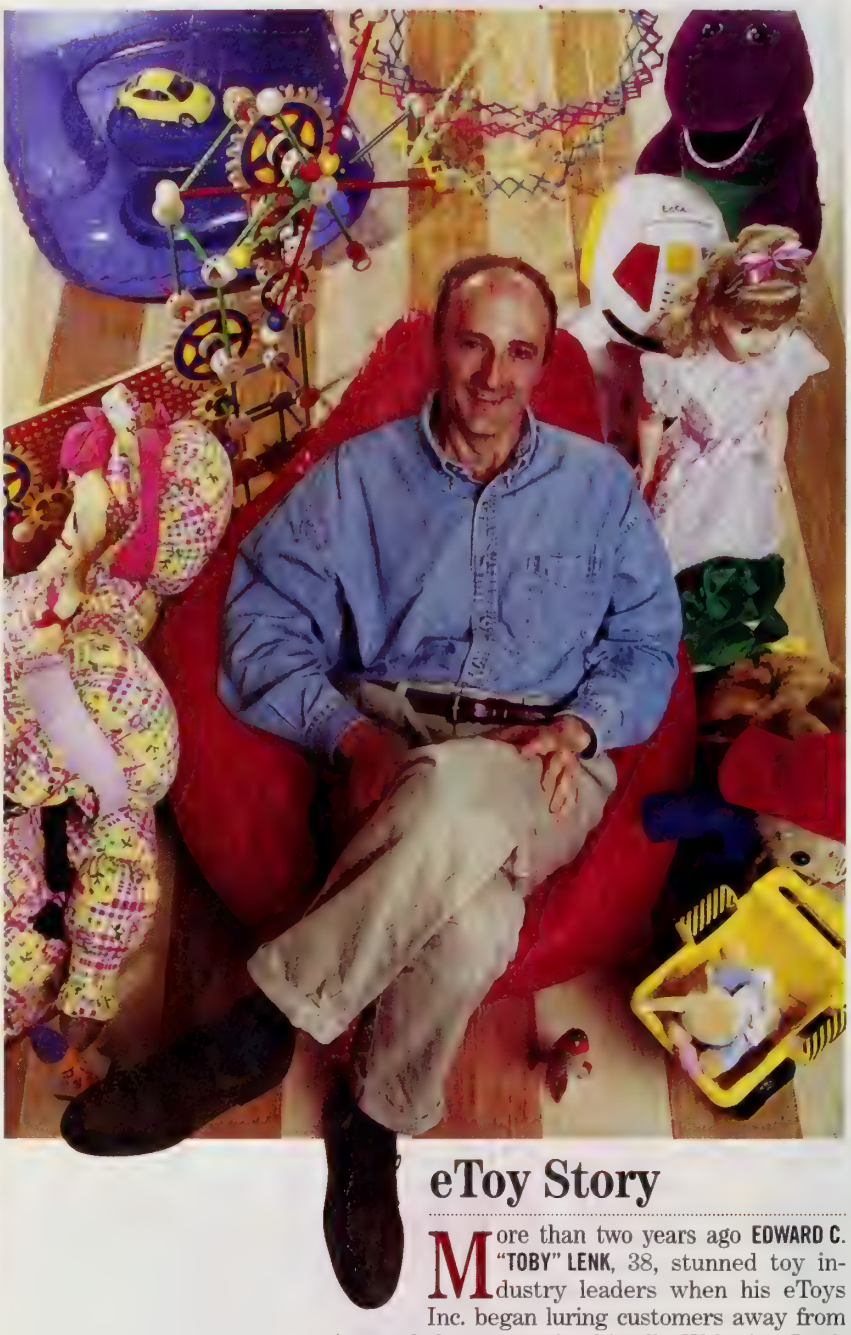
ovad Operations

s CEO of Covad Communications, **ROBERT E. KNOWLING** has turned copper one wires into gold. nowling, 44, runs the ost successful of a crop of w phone companies that sell eedy digital Internet con-ctions. Surging demand s sent Covad's revenues yrocketing, from $5.3 mil-n in 1998, to an expected 0 million in 1999, though the mpany is still in the red. Co-d's subscribers should grow 290,000 this year, up from ,000 in '99. Knowling—a veteran the Baby Bells who joined the three-year-l Covad in 1998—oversaw its IPO last Jan-ry. The stock has since more than quintu-pled, to around 60, giving Covad a market cap of $5.6 billion. For Knowling, who grew up in pover-ty in rural Missouri, the sixth of thirteen children, entrepre-neurialism has brought sweet success indeed.

Wireless Wonder

In five years, **ALAIN ROSSMANN**'s Phone.com, formerly known as Unwired Planet, has wormed its microbrowsers into the wireless phones offered by just about every major cell-phone maker. Rossmann, 43, has positioned his company as the leader in developing technology that provides wireless sub-scribers with access to Internet ser-vices such as news, stocks, weather, and e-mail. Indeed, Ross-mann, a one-time Ap-ple Computer exec, is in the enviable spot of having the most popular microbrowser by far as de-mand for on-the-go Net ser-vices is soaring. Rossmann makes his money selling servers to phone companies that offer Internet access. Revenues, just $13.4 million this year, could reach $41 million next year and $73.3 million in 2001. Wall Street is impressed. Phone.com stock has soared 1,500%, to around $130, since its June initial public offering.

THE TOP ENTREPRENEURS



eToy Story

More than two years ago **EDWARD C. "TOBY" LENK**, 38, stunned toy industry leaders when his eToys Inc. began luring customers away from crowded stores to its friendly Web site. Lenk realized earlier than most that the Internet is a hassle-free way for parents to buy toys for their kids. Today, the company sells 100,000 different toys, books, videos, music, and software products. Analysts expect eToys' revenues to top $120 million for the year ending in March, up 300%. Lenk, CEO and self-styled "Uncle of the Board," quit a job as a strategic planner for Disney to start the e-tailer. Though the shares have taken a hit as big players such as Toys 'R' Us and Wal-Mart have entered the market, eToys remains the player to beat in this fast-growing field.

Infosys: Indian Jewel

Soft-spoken **N.R. NARAYANA MURTHY**, 53, chairman of $120 million Infosys Technologies, built the software developer from scratch, starting in 1991 with seven partners and $1,000 in savings. The Bangalore, India-based company provides Internet and e-commerce software services to U.S. clients such as Aetna and Nortel. Since listing with Nasdaq in March, Infosys' American depository receipts have ris about 840%—giving it a market capitalizati of $19 billion. Using Western manageme techniques, this humble engineer from Sou India is redefining the standard for perf mance in Corporate India.

Freeplay's Fast Track

Not every hot entrepreneur these da comes from the high-tech world. Ta privately held Freeplay Energy Gro co-CEOs **RORY STEAR**, 40, and **CHRISTOPHER STAIN** 38. The South African duo have built a fas growing business—and stayed true to a bel in social justice—selling wind-up radios th don't need batteries or electricity. To he educate people about preventing AIDS, th began to distribute them through agenci in the developing world. Recently, they' begun to sell the radios—for $80—to campe and boaters at Radio Shack, Sharper Imag and Sports Authority. Doing good while doi well is a lucrative combo: From $18.5 milli in 1998, sales should hit $50 million this ye

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Industry

As the outlook in Asia improves, the U.S. economy seems set to grow at a pace defying the experts. One reason: Businesses are escaping productivity crunches.

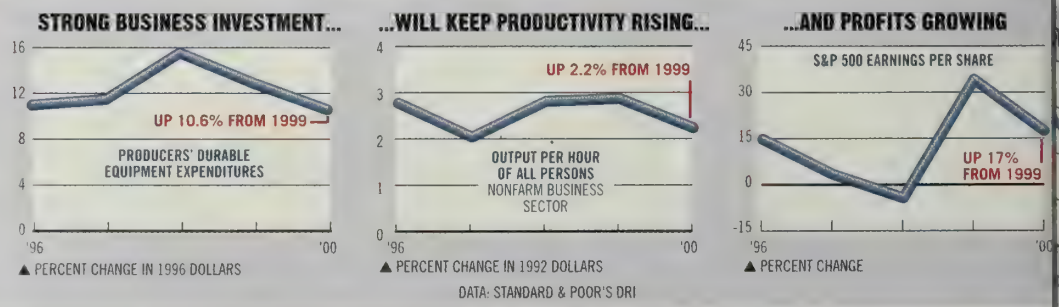
The U.S. economy, just off a spectacular 1999, poised to confound the pessimists again in 200 By rapidly increasing their productivity, Amer can businesses are making it possible for th economy to run faster than its erstwhile spee limit. Growth has averaged more than 4% fo the past three years, yet inflation has been dormant. In 199 consumer prices rose just 2.2%, even though oil prices doublec

Expect more good news in 2000, as companies find new ways t produce more with less. Standard & Poor's DRI, a unit of BUS NESS WEEK's publisher, The McGraw-Hill Companies, predict that the inflation-adjusted gross domestic product will grow healthy 3.6% in 2000, while the consumer price index will ris just 2.3%. (Measuring from fourth quarter to fourth quarte DRI predicts GDP growth of 3.1% and inflation of 1.9%.)

To see how the U.S. economy keeps defying conventional eco nomic theory, talk to people like William R. Johnson, chie

THE EXPANSION THAT WON'T QUIT

This February, the current economic expansion will become the longest in



Outlook

executive of Pittsburgh-based H.J. Heinz Co. Strong economic growth is putting upward pressure on Heinz's personnel costs. Says Johnson: "I continue to worry about labor costs and the difficulty in attracting and maintaining talent." Big pay raises would solve the problem, but Heinz prefers other options. One solution: Heinz is centralizing its five U.S. operations in Pittsburgh. That will improve retention because Heinz can transfer executives between divisions without uprooting their families.

Productivity growth comes down to working smarter, not harder. Budget Group Inc. President David N. Siegel, a veteran of Continental Airlines Inc., says companies in the car-rental industry are investing in computer systems for managing prices and inventory so they can make fuller use of their fleets. Says Siegel: "I think you're going to see the same sort of improvement over the next three to five years in the margins of this industry that you saw in the airline business."

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Every bit of efficiency helps, because the U.S. economy is bumping up against resource constraints. Most in demand, of course, is labor. The national unemployment rate of 4.1% in November—the lowest since 1970—masked such heartand unemployment levels as 1.7% in October in Cedar Rapids, Iowa, and 2.8% in Columbus, Ohio. "This is labor's time," says Kenneth T. Mayland, chief economist at Cleveland's KeyCorp bank.

The betting is that Federal Reserve Chairman Alan Greenspan will

Leaders

COMPUTERS The Net fuels sales of PCs, chips, and new Net appliances.

SOFTWARE E-commerce sparks a massive wave of software development.

TELECOM Net service revenues boost bottom lines even as carrier prices hit new lows.

SECURITIES It will hold the line on expenses while raking in fees.

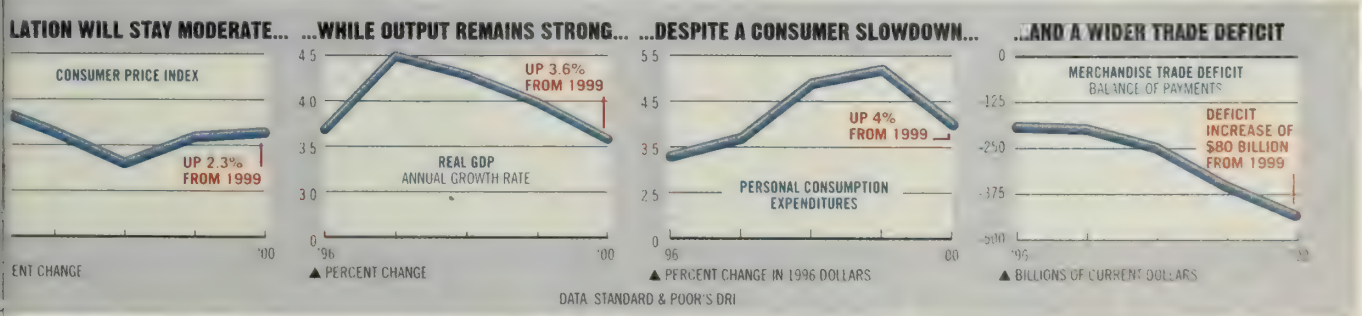
Laggards

AEROSPACE Asia's recovery doesn't provide needed relief as plane sales slow.

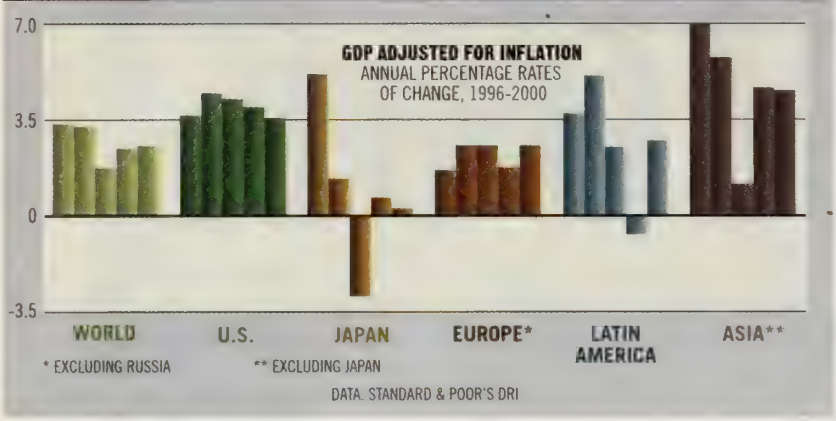
AGRICULTURE Weak fundamentals and a price slump mean government assistance is likely.

INSURANCE Anemic revenues and ROEs necessitate radical restructuring.

HEALTH CARE Rising medical costs and an uncertain regulatory climate create turmoil for managed-care companies.



GLOBAL ECONOMY Worldwide growth should rise slightly, to 2.6%, as many Asian countries roar ahead and Europe and Latin America accelerate. Japan remains a sore spot.



manage to keep inflation under control in 2000. But to do so, analysts predict, the Fed will impose more rate hikes this year—possibly in February, then in March—on top of the three quarter-point increases laid on since last June.

Unless the Fed overreacts, however, its rate hikes should not inflict serious punishment on the economy. Helped by the efficiencies of the Internet, productivity growth has been dramatic and is expected to continue. DRI, for one, expects nonfarm output per hour to rise 2.2% this year—not as good as 1999's likely 2.8% but still well above the average of the past quarter-century. Gains in efficiency should dampen inflation pressures and let the Fed stick with its policy of tweaking instead of braking economic growth. DRI expects healthy rises this year of 4% in personal consumption and 10.6% in capital spending, both rates down modestly from 1999.

BLOWOUT. For many sectors, 1999 will be hard to beat. Still, 2000 should be a good year for everyone from retailers and drugmakers to securities firms and metals producers. Software should have a blowout year. Even the Y2K computer glitch is apt to have little effect on the economy, say most economists. There were fears that output would plummet in the first quarter because of inventories accumulated against a Y2K disaster. But the stockpiling hasn't occurred. "We are blessed," says Carl B. Weinberg, chief economist at High Frequency Economics Ltd., a Valhalla (N.Y.) economic advisory firm.

In some hot industries, forecasted growth rates are simply staggering. Merrill Lynch & Co. expects U.S. sales of networking equipment to shoot up 22% this year. Yankee Group Research Inc. projects that the number of U.S. wireless communications customers will climb 21% this year, to 105 million. "This industry is the most exciting I have seen in a very long career," says AT&T Chairman C. Michael Armstrong. Falling prices are triggering an av lanche of new business. Says Armstrong: "Th industry will be not only one of the largest b one of the fastest-growing for a long time."

That's not to say everyone will be a winne The obvious candidates for a pinch are interes rate-sensitive sectors that will be hurt by F tightening. Already, housing sales are slowing response to higher mortgage rates. The N tional Association of Home Builders expec that existing-home sales could slip 8%, to 4. million units, in 2000, while new-home sal drop perhaps 5%, to 860,000. Higher lendi rates are also expected to reduce car and tru sales. After selling some 16.7 million vehicles 1999, carmakers may move just 16.1 milli this year, figures Diane Swonk, chief econ mist at Chicago's Bank One Corp. That wou still equal the second-best year in history.

Those slowing sectors are the exception Overall, the danger is that growth will be t fast, not too slow. Staffing up to meet rocketi demand is getting ever harder. Merck & C faced with a shortage of neuroscientists, r cently bought Sibia Neurosciences Inc. in La J la, Calif., in part because it couldn't get enou

CONSTRUCTION

As the Fed tries for a soft landing, industry-watchers say sales of new and existing homes are likely to slide in response to higher interest rates

PHOTO BY NATL. ANSEN. PHOTOGRAPH BY MARK E. GIBSON/FOLIO

U.S. talent to work at its lab in Britain. mpower Inc., the Milwaukee temporary ffing giant, trolls for talent in social and pro- ssional groups, synagogues, and churches. It nsors luncheons with recruiters as speakers d even makes charitable donations for each rker found. "There is no relief in sight," says o Jeffrey A. Joerres.

Perhaps the most con- ming concern for forward- king corporate chiefs will cyberspace. "The Inter- t will continue to grow at ntastic rates," says John Roth, CEO of Nortel etworks Corp., the big ampton (Ont.)-based com- unications equipment mak- "The e-commerce wave ll transform the way peo- in virtually every indus- do business." Forrester search figures online sales businesses and consumers the U.S. will more than uble this year, to about 30 billion, and could nearly double again in 01. "The U.S. is in hypergrowth," says Varda f, a senior analyst with Forrester.

BALANCES. Economic growth in other coun- es should continue to rebound. Europe could an uptick in growth, from about 1.8% in 99 to 2.6% this year, as it adjusts to monetary ion, says Standard & Poor's DRI. The fore- ter expects the Asian powerhouses outside of pan to grow about 4.6% this year, about the me as in 1999, while Latin America grows about 2.8% after shrinking 0.6% last year. The worst drag will be Japan's domestic market. Although the government has raised spending and pushed short-term interest rates toward zero, weak banks aren't lending money. Worse, government loans to troubled companies are delaying much-needed consolidation. "The real solution of tough restructuring is being put off," says Akio Mikuni, president of credit agency Mikuni & Co. DRI expects Japan's GDP to gain only 0.3%—even less than last year's 0.7% rise.

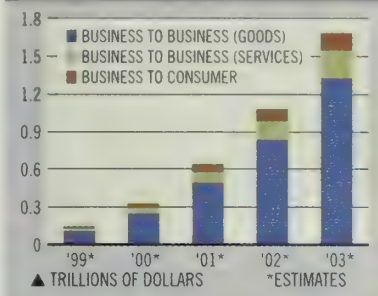
The combination of strong growth in the U.S. and weaker growth elsewhere will increase trade imbalances. After climbing 40% last year, the U.S. trade deficit could rise 23%, to about $430 billion, this year, DRI warns.

It's disappointing that world growth isn't better balanced. But the U.S is doing its part to keep things humming. For the U.S. economy, the ceiling is nowhere in sight.

By Joseph Weber in Toronto, with Steve Rosenbush in New York, Amy Barrett in Philadelphia, and Brian Bremner in Tokyo

THE BOOM IN 'B-TO-B'

Online sales to consumers get all the attention, but the Net will really make its mark in online sales of goods and services between businesses:



DATA FORRESTER RESEARCH INC

Sectors apt to do less well are those such as autos that are more sensitive to hikes in interest rates

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E-COMMERCE

The Internet will continue to transform how consumers–and companies–do business

INNERS AND OSERS OF 1999

wo sectors to watch

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e-people,

e-economy,

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INFORMATION

92 **COMPUTERS AND CHIPS** This year could mark the beginning of the end of the PC-centric universe. Coming on strong will be new Net appliances that will reenergize makers of PCs and chips. *Revenue for 2000:* **+8.1%**

94 **SOFTWARE** From millennium bug to millennium boom: As corporations put fears about Y2K behind them, they get swept up in a race to catch the e-commerce wave. *Revenue for 2000:* **+8.9%**

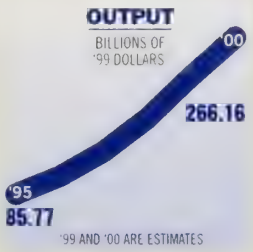
96 **TELECOMMUNICATIONS** The war for local telephone dominance will begin in earnest, with the boundaries between wired and wireless service blurring as technology improves. *Revenue for 2000:* **+4.8%**

98 **MEDIA** The digital demon is out of the bottle. The continued rise of the Internet and digitally delivered TV will make size crucial to the survival of media companies. *Revenue for 2000:* **+6.5%**

CE: STANDARD & POOR'S DRI

COMPUTERS AND CHIPS

PROGNOSIS 2000



POSITIVES

- *The memory-chip market could grow 40%. So-called flash memory will get a boost from digital cameras, MP3 players, and cell phones.*
- *Dot.coms will snap up record numbers of large computer servers running Unix.*

NEGATIVES

- *Chip-capacity shortages could wreak havoc with PC makers, who may be looking at production shortfalls.*
- *PC makers will trot out newfangled information appliances. Some new products—and business models—will bomb.*

In 2000, personal-computer makers will try to fo get the monster they let loose on themselves 1999: the almost-free PC. They'll go back to se ling PCs the old-fashioned way–charging as muc

rather than as little, as possible. But don't be fooled by the seeming return to normalcy. It won't last.

The Internet explosion is creating once-in-a-lifetime opportunities for innovators who can develop gizmos with the potential to become as commonplace as phones. Even conservative computer companies are finally getting off their duffs and experimenting with new products and business models, says International Data Corp. analyst R. Kevin Haus.

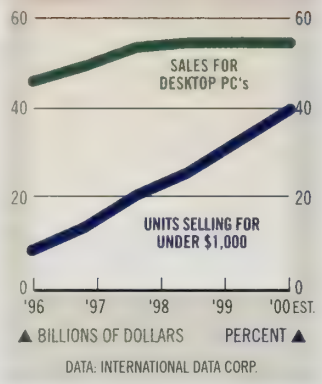
These jazzy new Internet products probably won't hurt the PC business much this year. But with the Internet becoming such a big part of everyday life, even erstwhile skeptics realize that friendly, non-PC devices will get a greater slice of the consumer pie. "We're going to focus on PCs and information appliances simultaneously," says H. Weber McKinney, PC chief at Hewlett-Packard Co.

Call it the Big Millennial Mind Shift, with the electronics industry taking a giant step beyond the traditional PC-centric world. To be sure, PCs will remain hot, with unit shipments jumping an estimated 19% this year. But come next winter, PCs could be upstaged by a flurry of newfangled Net appliances—not just from relatively unknown pioneers such as TiVo and Research in Motion but from such heavies as Compaq, Gateway, and HP. Fortunately, 2000 will provide a healthy backdrop for the new thrusts. "All of our customers are just doing fantastic right now," says Michael E. Marks, CEO of Flextronics Inc., a contract manufacturer that serves a wide swath of the electronics industry.

For chipmakers, all the new-product activity is icing on the cake—adding promises of lucrative new markets to go with the welcome relief from years of overcapacity and soft prices. Sales set a monthly record last October—$13.4 billion—and 2000 will be another best year ever, predicts Walter G. Lahti, an analyst with consultant Integrated Circuit Engineering Corp. Overall, he looks for a 17% increase in chip sales, to $169 billion. That's $25 billion more than the industry's previous peak in 1995. And surging chip sales mean incre demand for semiconductor production eq ment, says James C. Morgan, CEO of ma leader Applied Materials Inc. "With DVD p ers and high-definition TVs and all those applications for the Internet, there's a lot pening out there," he notes.

Much of the action is in chips for wire communications and Net equipment, with n innovations on the way, judging from trend Texas Instruments Inc., a supplier of chips for dig phones. Last year, small start companies working new telecom systems bou 30% of TI's output, up fr 22% in 1998, says Forew Concepts Inc. market wat William I. Strauss.

SPOTLIGHT



All the new-product deve ment is exacerbating a ti chip-supply situation stemm from recent capital-spend cuts by Asia's chipmakers. A result, supplies should be ti all year, says Kenneth Potashner, CEO of chipmaker Inc. Indeed, prices for flash memory chip used in digital cameras and MP3 music p ers—have jumped 50% in recent months. beleaguered makers of commodity mem chips, led by Korea's Samsung Semiconduc are also cheering. From 1995 to 1998, their enues dropped more than 50%, to $25 bill But the memory-chip business is on the me It grew 38.3% in 1999, and sales should crease 33% more this year, to $44 billion, s Dataquest Inc. analyst James Handy.

PRICE WAR. For PC microprocessors, the ture isn't so rosy. Demand isn't the probl Integrated Circuit Engineering predicts gro of 14.4% in 2000, to $32.5 billion, roughly o par with last year's 14.8% figure. But the p war raging between Intel Corp. and Advan Micro Devices Inc. could sap profits. Si AMD briefly unseated Intel as the speed cha in August, the two rivals have cut prices m than a dozen times. In addition, both are st ping up development programs and plan deliver superspeedy 1,000 megahertz, or gi hertz, processors in the first quarter—mon ahead of schedule. Still, Merrill Lynch &

alyst Joseph A. Osha expects Intel's earnings rise 12.3%, to $8 billion.

Good deals on hot chips should fuel demand r workstations and the computer servers at run corporate networks and Web sites. les of Unix servers from the likes of Sun Mi-osystems Inc. and IBM will climb 6.5%, to 7.5 billion in 2000, says International Data. at contrasts starkly to the negative growth 1998 and 1999. But the growth prize will go PC servers. Spurred by Microsoft Corp.'s w Windows 2000 operating software (page), they'll jump 26.5%, predicts IDC.

PC makers probably will get their holiday m steep, 30%-a-year price declines. Ana-sts project a drop of just 10% in average ice, to roughly $1,200. And given the likeli-od of a chip-supply squeeze and high parts ices, PC prices could even rise. There's also s demand for "free" PCs. The percentage of tail buyers willing to sign up for long-term ternet service to earn hefty rebates fell from 1% in July to only 1.4% in November, ac-rding to Allison Boswell Consulting Inc.

Besides, PC demand remains strong. While C pegs unit growth at a brisk 19%, that could rn out to be low. "With all the Y2K uncer-inty out of the way, I think it's going to be a eat year," says G. Carl Everett Jr., senior ce-president of Dell Computer Corp. Ana-sts look for major gains in laptops and small-, simplified PCs such as Dell's new WebPC d Gateway's Astro. Apple Computer Inc. is pected to polish off the year with 20%-plus venue growth. And in Japan, PC sales have so been rebounding.

In fact, PC makers are likely to have trouble getting enough chips and notebook displays to satisfy demand. Analysts say fourth-quarter PC production dipped more than 15%, in part because of supply dislocations from the Taiwan earthquake in September. "A lot of the third tier guys are being forced out of business be-cause they can't get parts," says Gilles Bouchard, operations chief for HP's home-PC division. "I haven't seen that in years."

"MAXIMUM REVENUE." Longer term, a bigger threat looms in 2001, when prices head south again. "We're in the moment of maximum rev-enue right now," says International Data analyst Roger L. Kay. He expects PC revenues this year to decrease $100 million from 1999's peak of $54.7 billion. That's why many PC makers hope to rake in "beyond-the-box" revenues from e-commerce, customer support, and Internet services. For example, Micron Electronics Inc. is diversifying into online storage and Web-site hosting. And last month, Dell took a major stake in allcom Inc., a startup that plans to earn money by connecting consumers and small businesses to for-hire techie problem-solvers.

This doesn't mean the companies are giving up on dreams of PC ubiquity. Still, competi-tors keep popping up in the darnedest places. Connected to a refrigerator, for instance. That's coming soon in the form of a $350 tablet-style device. This newcomer will bring the Net into the kitchen to help plan meals and do financial chores. So computer makers that don't look beyond the heady PC market of 2000 could eventually end up filled with regret.

By Peter Burrows in San Mateo, Calif.

Next winter, PCs could be upstaged by flashy new Net gadgets from big guns like Compaq, HP, and Gateway

IS THERE LIFE BEFORE PLAYSTATION 2?

Ten-year-old Satoshi Kusakabe is a typi-cal Japanese youth. He loves his Pokémon trading cards, Game Boy, and video-game collection. The native of Yamagata in northern Japan owns several dozen soft-ware titles and—get this—three video-game consoles: a Nintendo 64, a Sony PlayStation, and a Sega Saturn. So in 2000, will Satoshi buy the new Sega Dreamcast or Sony Corp.'s upcoming PlayStation 2? It's a no-brainer. "I'm get-ting the new PlayStation," he says. "It's supposed to have the best performance."

NOT CHILD'S PLAY: *Video games bring in $14 billion a year*

In five short years, Sony has morphed from a maker of Trinitron TVs and cam-corders into the King of Games. The buzz about the new PS2, due in March, is so loud that game-crazed Japanese kids are shunning Dreamcast to wait for Sony. Never mind the fact that the Sega Enterprises Ltd. machine won raves for its speed and mesmerizing graphics, and that it sells for $199, compared to an expected $385 for the PS2. Even in the U.S., where Dreamcast is a hit, many gamesters will wait for the PS2's fall 2000 debut, predicts Ed Roth, vice-president of game market researcher NPD Group.

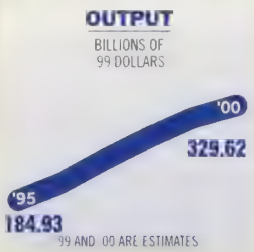
This business is no kiddie game. Total world production of console hardware and software has grown from $10 billion to about $14 billion in the past two years, according to Japanese industry research. Of that, Japanese companies accounted for more than $10 billion in 1999—half of which was exported around the world. In the U.S., console game software alone rang up sales of $3.7 billion. Sales pre-dictions for 2000 range from flat in the U.S. to an 8% or 9% gain for Japan.

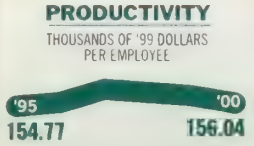
Until the PS2 actually ships, however, nobody is going to declare Sony the win-ner. The Dreamcast, with its fast 128-bit microprocessors, has been flying off U.S. shelves since its September launch. It's not the only competition for Sony. Sometime in 2001, it will have to deal with a new Ninten-do console, code-named Dolphin, that may run on a 256-bit chip. Around the same time, all three Japanese game makers may be fighting off an assault by Microsoft Corp. Hey, this a heck of an arms race. Somebody really ought to turn it into a video game.

By Irene M. Kunii in Tokyo

SOFTWARE

PROGNOSIS 2000





DATA: STANDARD & POOR'S DRI

POSITIVES

- *Watch for a boom in customer relationship management software, which melds Web sales with other channels.*
- *Application software providers, a new breed, will do big business renting out programs on a per-use basis.*

NEGATIVES

- *Enterprise resource planning software will have trouble bouncing back from a wretched 1999, replete with costly installation snafus.*
- *Unix offerings from SGI and others will be trounced by Windows 2000, due in February.*

A year ago, BEA Systems Inc. looked like a basket case. Executives at the San Jose (Calif.) maker of software for linking complex corporate computing systems watched helplessly while investors

concerned with Y2K issues knocked the share price from 26 to 14 in one day. In BUSINESS WEEK's Industry Outlook report last year, we pointed to BEA Systems as evidence that 1999 would be a schizo year for the software industry.

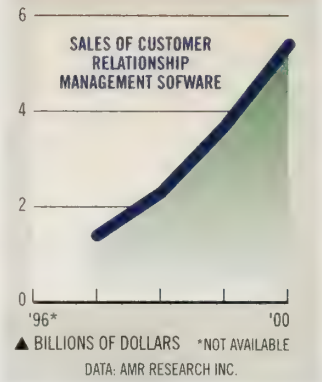
Indeed it was. Y2K jitters took their toll. But in the end, BEA Systems wasn't a victim. In fact, its stock is trading at about 120, up nearly 800% in a year. And because of its near miraculous turnaround, BEA Systems has come to symbolize the bright promise of the software industry in the year ahead. The company retooled itself as a provider of vital programs for managing e-commerce Web sites and landed a crucial partnership with Hewlett-Packard Co. Now, with sales increasing at 20% a quarter, it's catching the e-business wave. "This e-commerce thing is really happening," marvels BEA Systems CEO William T. Coleman III.

E-commerce. E-business. E-engineering. No matter what you call it, fear of Y2K problems among the technology czars at corporations has been replaced by an irrepressible urge to morph their companies into Net businesses. This phenomenon offers the prospect of rapid-fire growth for dozens of software companies. "We're in the early stages of a massive wave of software development that's allowing companies in a wide range of industries to transform their businesses," says Anne Meisner, an analyst at Goldman, Sachs & Co. As a result, the market for e-commerce packages is expected to hit $4.2 billion in 2000, up 151%, according to International Data Corp. Software to manage customer relationships should top $5.4 billion, up 46%, says market researcher AMR Research Inc. Meanwhile, the emerging application service provider market—software offered via the Web as services—is expected to leap from $2.77 billion in 1999 to $5.5 billion this year, according to Dataquest Inc.

Overall, revenue growth in the software sector is expected to be solid if unspectacular this year. IDC projects that the worldwide packaged-software market will top $175 billion, up 13.5% from 1999. While that percentage is slightly lower than last year's, it comes on a larger base. Also, it reflects sluggish growth for mainframe software.

Thanks in part to demand created by the Web, even some of the torpid software markets are expected to pick up this year. Revenue from retail PC software sales last year increased just 12.2%, to $5.7 billion, according to market researcher PC Data Inc. But the forecast for 2000 is for a 20% increase—boosted by fast-growing online sales.

SPOTLIGHT



WINDOWS INVASION. On the server side, the long-awaited introduction of Microsoft's Windows 2000 operating system in February is expected to drive many software upgrades. Microsoft has beefed up the package in an attempt to make it handle the busiest Web sites and finally penetrating the computing realm that so far has been owned by Unix servers. I think Windows 2000 will be a breakthrough. Microsoft's computer partners are pushing the upper limits with this software," says Dwight Davis, an analyst with market researcher Summit Partners. Partly because of Windows 2000, BancBoston Robertson Stephens Inc. expects Microsoft's revenue to rise from $19.74 billion in fiscal year 1999 to $23.78 billion in 2000, up 20.5%. Profits are expected to increase 11%.

While Windows 2000 may change the balance of power in computing, corporate applications are where the real excitement is this year. And no market is being watched more closely than software for customer relationship management (CRM). Siebel Systems Inc., San Mateo, Calif., is the leader of the pack with a 35% market share. Two rivals, Vantive Corp. and Clarify Inc., both ran into problems and were bought by larger companies last year. "Siebel's momentum has started to fend off itself," comments analyst Marshall Senk of BancBoston Robertson Stephens.

But Siebel will have to be on its toes. New entrants such as Silknet Software, E.piphany and netDialog are coming out with Web app

tions and services that automate all sorts customer outreach. E.piphany, for instance, fers software that analyzes customers' prefences and helps sellers come up with personalized marketing campaigns. Hambrecht & uist expects E.piphany's revenues to grow 8% this year, to $38.5 million.

E-business is larger than customer-relationship management. And BroadVision Inc. of edwood City, Calif., is emerging as the e-mmerce specialist to watch. It has rounded such blue-chip customers as Citibank and S West. Deutsche Bank Alex. Brown expects BroadVision's revenues to grow from 5.4 million in 1999 to $140 million this year, ith net income growing from $14.1 million $18.1 million. "You ain't seen nothin' yet," ys BroadVision CEO Pehong Chen.

ILD CARD. His spot certainly looks attractive to the leaders in the fading software segent called enterprise resource planning. at's software that helps companies manage counting, manufacturing, and human reurces. The ERP market grew only 12.5% last ar because of Y2K worries and customer distisfaction with long and expensive installaons. Now, the market leaders are seeking w realms to conquer. ERP leader SAP of Gerany just launched a Web portal designed to t businesses forge online links with customers d suppliers. And Oracle Corp. landed a deal provide an online exchange where Ford otor Co. can handle more than $80 billion a ar in transactions with suppliers.

Oracle is in one of the best spots to capitale on the e-business gold rush. It sells databases that are vital to large Web sites, CRM applications, e-commerce, and supply-chain software—and all of it has been adapted to the Net. Analysts expect all that spadework to pay off this year. "Oracle has done a masterful job of positioning its products for the Web," says Neil J. Herman, an analyst for Salomon Smith Barney, who predicts that Oracle's revenues will increase 14%, to $10.07 billion, this fiscal year and that profits will increase 33%.

Oracle's newest target is the application service provider market. It's offering its own corporate applications directly to customers via the Web, but most of the other 150 or so ASPs resell other companies' software as fee-based services. Corio of Redwood City, Calif., for instance, fronts for BroadVision, Siebel, and PeopleSoft. So far, most of the ASPs are targeting midsize businesses. "It will be a while before the top corporations will consider handing off their computing to outsourcers," says Mary Pat McCarthy, vice-chairman of KPMG Consulting.

The real wild card in the software industry this year is Linux. The so-called open-source operating system certainly holds sway on Wall Street, where the initial public offering of computer maker VA Linux Research Inc. on Dec. 9 produced a record-breaking 698% first-day price runup. But while Web sites embrace Linux for simple tasks like serving up Web pages, the software hasn't yet taken off within corporations. That's why this is more likely to be the year of Windows 2000 than the dawning of the age of Linux.

By Steve Hamm in New York

Oracle is in one of the better positions to cash in on the wave of companies migrating to the Internet

TRYING TO KEEP THE PARTY GOING

Software stars can lose their luster overnight. After years of astronomical growth, fortunes turned in 1999 for several big suppliers of enterprise programs that help companies manage manufacturing, accounting, and human resources. The year 2000 will be better for some players. But few of these companies, if any, will ever see the 40%-plus growth rates that were common in 1997-98.

For SAP in particular, the party turned quiet in 1999. Analysts last year were expecting a 22% increase in revenues. What they got was closer to 13%, according to estimates by Morgan Stanley Dean Witter. Part of the problem was widespread preoccupation with Y2K, which caused many of SAP's potential customers to freeze installations of new technology, including enterprise software. "Nobody expected the Y2K scare would cause so many companies to hold off purchases for this long," says Jim Shepherd, senior vice-president at AMR Research Inc. in Boston.

PLATTNER: *Reinventing SAP for the Internet era*

Now, to thrive in a post-Y2K era, enterprise software companies must retread themselves for the Internet. Once again, among traditional enterprise vendors, SAP co-CEO Hasso Plattner is leading the charge. But this time, SAP will have to share more of the winnings. The giant, with an estimated $5.3 billion in global sales last year, has launched an initiative called mySAP.com, which essentially grafts onto the Web the same huge SAP programs that customers use internally. This, in theory, allows groups of companies to collaborate more cheaply and easily.

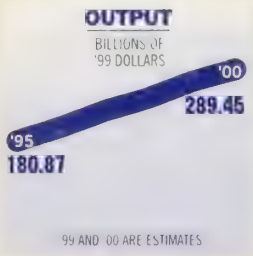
Market researcher Gartner Group, for one, thinks mySAP may be too little, too late. Instead of waiting for SAP, Gartner says companies should get needed Web programs right away from specialized e-commerce suppliers such as BroadVision Inc.

Morgan Stanley is less pessimistic about the Old Guard. It says SAP's 2000 revenues should rise a respectable 21%—higher than rivals such as Oracle Corp. and J.D. Edwards & Co. Adds AMR's Shepherd: "Folks in the application software business will be able to sell damn near anything as long as they put an 'e' in front of it."

By Marcia Stepanek in New York

TELECOMMUNICATIONS

PROGNOSIS 2000



POSITIVES

- *At least one major carrier will offer long distance at 3¢ a minute.*
- *Local and long-distance services will invade one another's turf, expanding choices.*
- *Growth in Net service will offset profits lost in long-distance price wars.*

NEGATIVES

- *Wage increases won't keep up with industry sales growth.*
- *Many consumers will be confused and frustrated by the proliferation of service options.*
- *Falling margins in long-distance markets will hurt smaller carriers.*

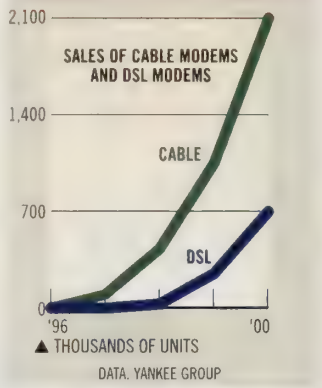
It was Thanksgiving morning, and an importa telecommunications battle was unfolding over co fee at the Port Authority Bus Terminal in New Yo City. Anita Guttman, a retired schoolteacher fro

Brooklyn, was perched on a stool at Zaro's Bread Basket, deep in conversation with her aunt Mildred Harmatz. The pair, en route to New Jersey for the holiday, were puzzled by a curious offer Guttman had received from AT&T. Her long-distance carrier wanted to sell her its new local telephone service. "I really don't understand it, but I want to hear what they have to say," she said. It won't be easy, however, to lure her away from her lifelong local phone carrier, Bell Atlantic Corp. "I wouldn't switch unless I got a really low rate, and it was something I could understand," she added.

Hello, competition. In 2000, for the first time, local and long-distance telecom companies will begin to battle in earnest for the business of consumers like Guttman. New York will be ground zero. In late December, the Federal Communications Commission granted Bell Atlantic permission to enter the long-distance market in New York State. The prospect of the Bell Atlantic threat prompted AT&T, MCI WorldCom, and Sprint to pile into the New York market with their own local phone services at the end of last year. The clash of titans has resulted in some customers seeing decreases in their local phone costs of up to 20%. And over the next year, the benefits of competition will begin to spread to consumers across the country. For example, Texas and Georgia may let Baby Bells into long distance in 2000.

BIG DEALS. To garner the financial might to deliver everything from local and long-distance services to wireless and Internet access, the industry is going through a complete overhaul. The value of mergers and acquisitions in the field through late December, 1999, totaled a stunning $561 billion, up 48% from the same period the year before, according to Securities Data Co. That includes the two largest deals ever—MCI WorldCom's $114 billion offer for Sprint and Vodafone AirTouch's $148 billion offer for German wireless carrier Mannesmann. And telecom players are just getting warmed up. Merrill Lynch & Co. analyst Adam Quinton says a $250 billion deal could occur in the dustry during the first half of 2000. As landish as that may sound, it's a real possib ty. AT&T and British Telecommunications which already have a joint venture for their ternational operations, could combine for BellSouth, Qwest Communications Inter tional, and Dutch carrier Royal KPN could a team up, says analyst Tod A. Jacobs of Sanf C. Bernstein & Co.

SPOTLIGHT



The phone giants are bu ing up to capitalize on seve rich opportunities. Demand 2000 will be strong for soupe up digital wireless servic high-speed Net access, and o er new telecom offerings. T U.S. telecom services sect including local, long distan wireless, and paid video, w grow by 9%, to $250 billi according to analyst Richa G. Klugman of Donalds Lufkin & Jenrette Inc. Da services will soar 30%, in pa because of the surging dema for high-speed Net acces While the traditional voice communicatio business trundles along at a 5% growth ra wireless phone service will jump by 20%.

The boundaries between the wired and wi less sectors will begin to blur this year. technology improves and wireless prices plu met, customers increasingly will view cellul service as a viable substitute for tradition phone service. "I think we will start to s people shutting off their home phones becau they have enough minutes on their wirele plans. They won't need both," Klugman sa Yankee Group Research Inc. estimates th 2% of wireless phone users no longer ha wireline phones at home, and that this numb will reach 6% in two years.

And mobile phones won't just be for cha ting. Increasingly, they'll be used to scoop i formation off the Net and transmit short te messages and other data. Sprint introduce wireless data services last year and will ma ket them aggressively in 2000. AT&T and Ne tel Communications Inc. plan to push simil services in the first quarter.

If you want a glimpse of the future in th

S., look to Japan. NTT DoCoMo, Japan's gest wireless carrier, introduced its "i-mode" reless data service in February, 1999. During year, an astonishing 1.7 million customers med up. That is nearly 6.6% of NTT's subriber base and 3.7% of Japan's total wireless bscriber base, notes Merrill Lynch analyst nda R. Mutschler. "We think that's staggerg," she wrote in a November report. "In r view, these numbers...could be a precursor things to come in other regions."

EE PHONE. As data traffic becomes more imrtant throughout the telecom industry, it ll have a fundamental impact on how serces are sold to consumers and businesses. nsider this: In early 2000, the volume of ta traffic in the U.S. will surpass that of ditional voice traffic. And by 2001, it will be times the volume of voice. That foreshadows ofound changes. As the importance of Net d data traffic rises and the price of voice lls plunges, many experts think customers ll get phone service for free and pay only for eedy Net services. "We think long distance ll cease to exist as a separate industry by 03 or 2004," Lehman Brothers Inc. analyst ake Bath says.

Services related to the data surge will be an portant source of new revenue for telecomunications companies. They are entering such lds as consulting, Web hosting, and media. the price of basic transport over the netork falls, revenue from these new fields must fset the loss. And the outlook is promising. e Web hosting industry, which Forrester esearch Inc. estimated at less than $2 billion in 1999, will hit $3 billion in 2000 and a cool $14 billion by 2003. Telecom upstart Global Crossing Ltd. announced in December that it was spinning off its Web hosting business as a separate entity to take advantage of investor enthusiasm for these companies.

As carriers are building new networks and retooling old ones to prepare for the onslaught of competition, telecom equipment makers are having a heyday. The $301 billion worldwide communications equipment market is growing 14% a year, according to Merrill Lynch. The $8.3 billion broadband switching market will increase a scorching 40% annually from 1999 to 2003, Merrill Lynch adds, while the $41.6 billion market for old-fashioned voice switches will grow by only 5%. That is likely to bring telecom-equipment makers into yet another wave of data-networking acquisitions. Nortel Networks Corp., for example, is paying $3.3 billion for Qtera, a hot data-networking company with virtually no revenues.

The most important change for people like Anita Guttman over the next year is that they finally will begin to see the benefits of competition. After all the consolidation and regulatory hand-wringing over letting local and long-distance companies go after one another, prices for all sorts of telecom services will begin to come down—in some cases dramatically. And there's likely to be a flourishing of new services as telecom players begin to compete for consumers' business. While Guttman isn't anxious to leave Bell Atlantic, she is willing to listen to AT&T and others. Just make her an offer.

By Steve Rosenbush in New York

"We think long distance will cease to exist as a separate industry by 2003 or 2004"

THE WORLD WIRELESS WEB

The 20th century finished in a froth over mobile phones. In 1999, the world population of cell-phone yakkers surged from 300 million to 427 million. The wireless frenzy inspired megamergers such as MCI Worldcom-Sprint and Vodafone-Mannesmann. It turned Qualcomm into America's hottest large stock and made Finland's Nokia the most valuable company in Europe.

What does an industry like this do for an encore? For starters, it keeps growing. Some 131 million new customers should acquire mobile phones in the coming year, according to International Data Corp. The biggest growth markets are China, India, and the U. S., which finally seems poised to follow the European cell-phone-on-every-ear model.

HOOKED UP: *There are 427 million cell-phone yakkers*

Even as the industry expands, its progression to the next evolutionary phase—the Internet—is likely to disappoint in coming months. Despite all the hype, Nokia, Ericsson, and other phone companies have been slow coming out with new Web-surfing machines and applications. "I'm worried about a backlash," says Erik Bohman, chief information officer at Ehand, a Stockholm start-up that makes Web-phone software.

By late 2000, this picture could change, however. That's when operators will start deploying the next data-transmission standard, known as GPRS, for general packet radio service. It will permit cell-phone users to stay hooked on to the Web every minute their phones are on—paying for data transfers but not for pricey cellular minutes. This model was pioneered by NTT DoCoMo of Japan and is already a rage in that country. Manufacturers couldn't be happier, as they will get to sell a whole new type of handset.

Through 2000, look for U. S. Internet players, from America Online Inc. to Oracle Corp., to plow into Europe's nascent mobile Internet market. Microsoft Corp., which formed a mobile joint venture with Ericsson in December, may try to link up with operators. DoCoMo will expand in Asia and Europe. And by yearend, all these wireless Internet concerns will start shifting their gaze to the biggest frontier of all—the U.S.

By Stephen Baker in Paris

MEDIA

PROGNOSIS 2000

OUTPUT
BILLIONS OF '99 DOLLARS

99 AND '00 ARE ESTIMATES

EMPLOYMENT
MILLIONS OF WORKERS

PRODUCTIVITY
THOUSANDS OF '99 DOLLARS PER EMPLOYEE

NOTE: INCLUDES CABLE
DATA: STANDARD & POOR'S DRI

POSITIVES

- *Broadcast networks and local TV stations will see more advertising by Internet companies and national political campaigns.*
- *Sales of movies on DVD will help establish a new flow of cash to Hollywood studios.*

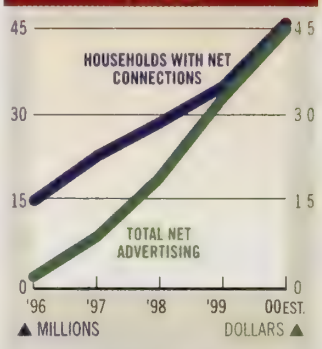
NEGATIVES

- *Free to air local TV stations, direct broadcast satellite companies will step up marketing, leading to price wars with cable operators.*
- *Under competition from the Net, TV broadcast viewing will drop below 50% of the market.*

Leo J. Hindery isn't sounding all that upset thes days about leaving the media industry. A mont after being forced to resign as president of AT&T cable operations, the 55-year veteran of the cabl business signed on to become chairman of the Internet arm of telecommunications upstart Global Crossing Ltd. "With all the competition that this industry faces today, I'm glad to let someone else worry about it for a change," he says.

In 2000, a lot of media executives might wish they had followed Hindery's example. After several false starts, this year the media business will get its first real taste of the competition being ushered in by the Digital Age. More than one-third of U.S. consumers will be staring at some form of digital appliance in 2000. These services will include everything from TV signals beamed from direct broadcast satellites to superfast cable modems to link their computers to the Internet. The competition for viewers will become intense enough to cut into the earnings of TV networks, cable operators, and Internet startups alike—even as the industry basks in the most robust advertising market of recent memory.

SPOTLIGHT



DATA: VERONIS, SUHLER & ASSOCIATES; WILKOFSKY GRUEN ASSOCIATES; JUPITER COMMUNICATIONS

The continued rise of the Internet, together with the growth of digitally delivered TV, will make size crucial to media companies, so the consolidation of media companies will continue. One target is likely to be General Electric Co.'s NBC-TV network, the only one of the six largest networks still independent—that is, it isn't linked to a Hollywood studio or a media company. Although GE executives insist that the Peacock Network isn't for sale, the company will probably still get offers. One likely bidder is Time Warner Inc., whose vice-chairman, Ted Turner, openly says he wants to add it to the company's cable systems, CNN and the WB Television Network. "If you're gonna be big, be big," says Turner.

Time Warner probably won't be the only one looking to grow. Within months, USA Networks Chairman Barry Diller says he will strike a deal to merge his shopping network's 12 TV stations with those of another company, giving him two outlets in each of the largest media markets.

The need to be large is so crucial that in 2000, for the first time, Internet companies m try to buy traditional media companies, sa Peter Kriesky, head of the media practice Mercer Management Consulting Inc. With stratospheric stock price, figures Kriesky, Am ica Online Inc. may go shopping for a tra tional media company to give it exposure b yond the wired world. It held talks with CBS 1999, but CBS hooked up with Viacom instea

Paradoxically, the continued fragmentation the media market will help t broadcast networks rake revenues in 2000, even viewers continue to flee t major networks for cable, sat lite, and the Internet. In 20 the Big Four networks w sink closer to half the pri time audience, the lowest le ever, says Veronis, Suhler Associates Inc., a media-indu try investment banking fir Still, network advertising likely to increase faster th in 1999, says Robert Coe senior vice-president of agency McCann-Erickso Stoked by heavy media buying for politic campaigns, the Summer Olympics, a dot.coms enriched by initial public offering the four largest networks will collect $16 billi in 2000, a 9% hike from 1999.

MORE DISHES. Nowhere will the fight to lu eyeballs be more evident than in the pitch battle between cable TV and direct-broadca satellite operators. Finally freed from restri tions on their ability to beam local channels their customers, satellite operators will co tinue to offer cut-rate equipment to gain ma ket share. That will help them add 33% mo subscribers, reaching 16 million in 2000, sa Carmel Group. But the two main operator Hughes Electronic's DirectTV unit a EchoStar, will incur big losses in the proces

The competition with satellites will acce erate cable's rush to offer digital services, i cluding Internet access and ever-larger sele tions of cable channels. By the end of the yea more than 80% of cable subscribers will b able to get some version of two-way intera tive service, compared with 45% in 1999, sa media analyst Lawrence F. Marcus of BT Ale

own Inc. That will enable cable operators to nerate $33 billion in revenue from their 67 lion subscribers, a robust 12% hike, with ep increases in pay-per-view revenues and ernet access fees.

Cable companies won't be the only ones shing to the Internet, the fastest-growing t of the media world. With computer prices opping to under $600, nearly two-thirds of S. consumers will have online access in 2000, rs Forrester Research Inc. That will mean vertising revenues of $4.7 billion for Net es in 2000, according to Jupiter Communications—a 47% increase over 1999. It will also an the first significant revenues from the Internet for major media companies. In 2000, er struggling to stop consumers from downding music, major record companies will gin selling music downloads of major artists. e key development will come this spring, en Universal Music, the world's largest mu- company, will begin selling downloads, along h Bertelsmann and Sony Music. "Traditionrecord companies have gone from seeing s as a threat to an opportunity," says Saul rman, senior partner for entertainment and dia at PricewaterhouseCoopers.

RTIAN INVASION. The still murky concept convergence of the TV and the computer l inch closer to reality in 2000 as large me- companies struggle to keep their audiences m fleeing to online diversions. By February, sney's ABC network will roll out an "enced TV" version of its hit show *Who Wants be a Millionaire*, allowing consumers to aner host Regis Philbin's questions as they are posed to contestants on the tube. The most eagerly awaited example of convergence, however, is the launch of Nickelodeon Chairman Geraldine Laybourne's much-hyped woman's network, Oxygen, with a brace of Internet sites linked to a cable channel.

As media-distribution companies scurry to beef up, Hollywood studios will find their ability to produce content ever more richly rewarded. DVD players will be hot in 2000, with as many as 7 million players expected to be sold, according to the DVD Video Group. That will help double DVD sales, to $4 billion in 2000. Studios will get a rush of new revenues for films already sold on videocassette by repackaging them in DVD format.

The DVD bonanza won't undermine the record box office that Hollywood is enjoying. As long as the economy stays strong, most moguls think folks will continue going to movie theaters. The industry isn't expecting another megablockbuster such as George Lucas' *The Phantom Menace*, but studios will release several sturdy sequels. Among the likely hits will be Warner Brothers' *Pokémon 2*, Paramount's *Mission Impossible 2*, and Universal's Eddie Murphy sequel to *The Nutty Professor*, entitled *The Klumps*.

But in its annual nod to excess, Hollywood will release two films about Mars within a few months of one another: the Brian De Palma film *Mission to Mars* from Disney and *Red Planet* from Warner Brothers. Even in outer space, it seems, the media giants can't get enough of competing with one another.

By Ronald Grover, with Steven V. Brull, in Los Angeles

Media companies still want to bulk up. "If you're going to be big, be big," says Ted Turner, who is eyeing NBC

HERE, TRY THIS DISH

Satellite TV's biggest advantage over cable TV has always been its ability to blanket the entire country with programming. In 2000, satellite companies will move to the next level: rolling out local programming so they can better compete with cable And they will begin to match cable companies' advance into interactive services in a serious way.

SMALLER ORBIT: *Satellite TV will offer local programming to vie with cable*

Lack of local programming is the biggest reason more cable-TV subscribers haven't defected to satellite, which offers more channels at lower cost. But early in 2000, both DirecTV Inc. and EchoStar Communications Corp. will beam down local stations in markets that serve more than half the country's households. That will help the satellite-TV industry scoop up 3 million new customers—2 million of them cable-TV defectors—for a total of 15 million, according to media researchers Carmel Group.

In the interactive arena, satellite companies will also up the ante. Both EchoStar and DirecTV plan to deploy new set-top boxes that incorporate so-called personal video recorders. These devices, made by TiVo Inc., Replay Networks Inc., and others, record hours of programming on a souped-up hard drive. Viewers will be able to cue instantly to any program they've recorded—something that cannot be done with conventional VCRs.

These same devices will help spiff up subscribers' Web-browsing experience. DirecTV and EchoStar—in partnerships with America Online Inc. and Microsoft Corp.'s WebTV unit, respectively—will begin beaming Internet content into subscribers' homes at speeds far faster than the typical home cable connection. The set-top boxes will then store huge numbers of downloaded Web pages, which users can revisit quickly anytime, offline.

For e-mail and mouse-clicking around the Web, satellite subscribers will still need phone connections, which can't match the speed of advanced cable modems. But the satellite guys are working on that. As these two camps thrash it out, the consumer can only win.

By Steven V. Brull in Los Angeles

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*Based on responses to the August 1999 Customer Satisfaction Survey directed to customers with fully deployed Siebel Front Office Applications. Calculations derived from all respondents who volunteered quantitative impact estimates in at least one of the above categories.

FINANCE

102 **SECURITIES** Profits, sure–but the booming economy could spell trouble if the Fed orders a rate hike. And online brokers could cause as much havoc as they did last year. *Revenue for 2000:* +9.4%

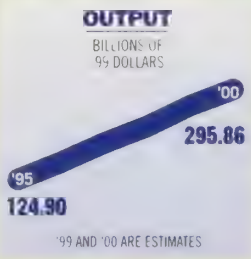
104 **INSURANCE** Thanks to deregulation, companies can tie more intricate knots than ever, but that's no guarantee of merger mania. Insurers' other preoccupation: Developing Net smarts. *Revenue for 2000:* +5.0%

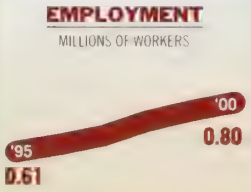
106 **BANKING** Good times may not be here to stay–not with the Fed crimping margins, the mortgage market uncertain, and all those bad loans coming back to haunt banks. *Revenue for 2000:* +5.5%

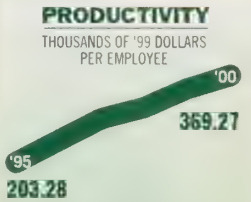
RCE STANDARD & POOR'S DRI

SECURITIES

PROGNOSIS 2000







DATA: STANDARD & POOR'S DRI

POSITIVES

- *Passage of financial-services reform opens new expansion opportunities in 2000.*
- *The global economic recovery and an M&A boom outside the U.S. should restore profits to investment banks' overseas branches.*

NEGATIVES

- *High compensation costs and rising interest rates could hurt margins in 2000, especially if profits decline and the stock market swoons.*
- *Electronic markets and Net brokers could keep eating into traditional firms' franchises.*

It's been a bang-up year for the securities industr But can Wall Street repeat this extraordinary pe formance in 2000? Although doubters have ofte been proven wrong on Wall Street in recent year

Morgan Stanley Dean Witter securities analyst Henry H. McVey says 1999's earnings will be hard to beat. He expects profits to be flat or slightly higher. And if the booming economy causes the Federal Reserve to hike interest rates, this could hurt corporate profits and depress the stock market, potentially injuring the entire industry.

Last year, investment banks and brokerages recovered nicely from 1998's twin setbacks—Russia's debt default and the near-collapse of the hedge fund Long-Term Capital Management. For New York Stock Exchange members, pretax profits for 1999 are expected to be a record $12.6 billion, up 29% from '98, the Securities Industry Assn. estimates. For all 7,300 broker-dealers, profits are expected to top $22 billion.

STREET SMART: *Brokers held the line on expenses*

One secret to the industry's success in '99 is that it held the line on expenses, which rose only 1%, to $162.8 billion. Meanwhile, the industry kept raking in commissions and fees. It took in a record $30 billion in commissions, up 16%. The red-hot initial public offering market also produced a record $15.3 billion in underwriting revenue. And fees from asset management grew 19%, to $10.7 billion.

GIMMICK. Execs are counting on a continuation of the Internet IPO gold rush. Some industry experts also predict that more companies will issue shares than did in '99, many of them focusing on business-to-business e-commerce opportunities. Action on mergers and acquisitions could increase too, much of it driven by a Financial Accounting Standards Board proposal to ban, by the end of 2000, an accounting gimmick called "pooling of interests" that lets companies combine their book values in a merger. This practice enables companies to inflate earnings by not writing down goodwill. "Anyone who wants to use their shares as currency to do deals will likely pursue a transaction in 2000," McVey predicts.

Passage of financial services reform legislation, combined with the end of pooling, co make 2000 the year of the deal. Look for m mergers, but also a bundle of strategic pa nerships, such as the just-announced agr ment between Citigroup and State Str Corp. to manage corporate 401(k) plans.

Such deals bring competitive clout. A Citigroup has another built-in advantage: fices in 100 countries. After being a drag profits for the past several years, overseas erations at most securit firms are expected to strong income generators 2000. Japan finally is show signs of life, as are ma Asian economies. But Eur is the region that is picki up the most steam: In t third quarter of '99, Europe M&A activity grew 300%.

So what will the securit industry's dark spot be 2000? No doubt, online b kers will continue to wre havoc. In 1999, the numb of online retail customers creased 60%, to 10 milli That's up from just 1 milli in 1996. By the end of 20 the number of online accou could grow to 15 million, p dicts Scott Appleby, senior finance analyst with San Francisco-based Ba Boston Robertson Stephens Inc.

Online customers now are responsible f some 20% of total daily volume on the sto exchanges, which are also losing business newfangled electronic trading systems. But ter causing turmoil for Wall Street's establis ment, the online industry can expect to fa some upheaval of its own. Appleby thinks t 75 or so online brokers will spend the next fe years consolidating, with such heavily marke ed firms as E*Trade Group Inc. and Charl Schwab Corp. as the buyers. Sellers might i clude Ameritrade, National Discount Broke and Datek Online. "I expect to see a shak out," Appleby says. As traditional Wall Stre brokerages charge online, competition w grow even more intense. Make that one mo reason 1999 will be a tough year to beat.

By Paula Dwyer in Washingt

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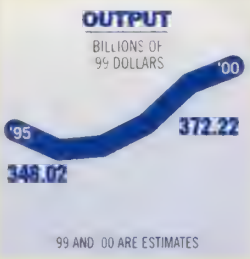
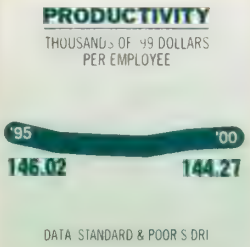
INSURANCE

PROGNOSIS 2000





POSITIVES

- *Investments in Net technology will cut costs, speed sales, and allow entry into online banking and other new businesses.*
- *Financial-services reform will trigger mergers among insurers and banks, creating bigger global competitors.*

NEGATIVES

- *Intense competition in the fragmented property-casualty business will inhibit rate increases and a return to profitability.*
- *Underwriting losses are likely to accelerate, especially at 'prop-cas' firms that took on risk to capture new business.*

Heard of any deals lately that combine a bank, a insurance company, and a brokerage under on roof? The silence since the 1998 Citicorp-Travele merger has been deafening. It took an act

Congress to keep the megamerger that created Citigroup intact. But now that Congress has repealed Depression-era laws that held banks, brokerages, and insurance companies apart, these companies have more freedom to tie all sorts of complicated knots.

Will they? Industry experts are divided. Some, such as analyst Andrew Kligerman of Schroder & Co., say banks will snap up life-insurance companies. "Financial-services reform will trigger two, maybe three meaningful deals in 2000" of at least $1 billion in value, he says. A few life insurers will merge, too, creating brawnier global competitors.

There are good reasons for this. Total insurance-industry revenue growth has been stuck in mid-single-digits since 1995, according to data from Standard & Poor's DRI; similarly, sales for 2000 should come in at a paltry 5% above 1999's figure of $365.7 billion. Mergers offer a chance for cross-pollination among financial-services companies.

HIGH LOSSES: *P&C companies saw revenues drop in '99, partly due to Hurricane Floyd*

But not everyone buys this reasoning. In the words of an executive at one of the nation's top-10 banks, why would a banking company generating returns on equity of 22% and above want to buy a life insurance company with a mediocre 15% ROE?

SLOW GROWTH. There's a much broader consensus about the logic for mergers in the industry's property and casualty segment. While the life industry at least has annuities to push revenue growth, this sector hardly has anything going for it. S&P analysts see zero growth for 2000. And talk about limp ROEs—the business of insuring cars and homes and companies is generating average returns of 7%. Premiums will grow less than 1%. And insurers in this highly fragmented industry can't raise prices because of competition. Incredibly, this has been the same story for maybe a dozen years. Companies haven't had the clout to raise prices since 1986.

Just when it couldn't get much worse does. In December, industry figures show that P&C companies' income was down 24 or $5.6 billion, for nine months of 1999 cause of increased underwriting losses and clining investment income. Consultants su as Robert W. Stein, national director of Er & Young's financial-services practice, warn t these companies don't have an adequate cu ion to handle additional losses. And losses m escalate—particularly at companies that scra bled to pick up n business by taking more risk. Mood Investors Service a Standard & Poo both take a poor vi of the industry. Sa Stein: "Some radi restructuring is pro ably necessary."

On the life insu ance side, much of t action is going to cus on three comp nies that are switc ing from mutu ownership to sto ownership: John Ha cock Mutual Life, Metropolitan Life, and Pr dential. "I think that will depress stock price says Stein. "You're going to have $50 billion new stock entering a market that's alrea depressed."

If there is a bright light in all this gloom, i the hope that the Internet may force the companies—many of them still in a technolo ical Paleolithic Age—to get current. Domini Cavuoto, a partner at KPMG specializing in nancial services, says he's been talking with number of life insurance companies that a planning to invest "fifties and hundreds of m lions of dollars" this year in new technolog Projects will include infrastructure for selli insurance online. To date, most of the Intern companies that boast about their online insu ance offerings don't actually sell without fir hooking up consumers to an agent on the te phone. In other words, there isn't an E*Tra of the insurance business—yet. Maybe th will be the year.

By Pamela L. Moore in Greenwich, Con

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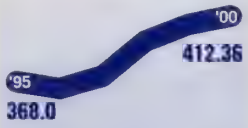
BANKING

PROGNOSIS 2000

OUTPUT
BILLIONS OF 99 DOLLARS



'99 AND '00 ARE ESTIMATES

EMPLOYMENT
MILLIONS OF WORKERS

PRODUCTIVITY
THOUSANDS OF '99 DOLLARS PER EMPLOYEE

DATA STANDARD & POOR'S DRI

POSITIVES

- *Glass-Steagall repeal sets stage for merger mania between banks, insurers, and brokerages, with banks likely victors.*
- *Continued strong growth and low inflation should support more lending activity despite higher rates.*

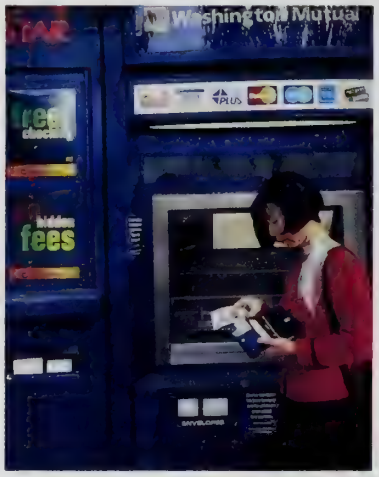
NEGATIVES

- *Credit problems are creeping up. Regulators are likely to demand that banks boost capital and write off bad loans. Both moves would cut profits.*
- *Political backlash to ATM surcharges could cut one of the industry's best sources of fee income.*

By most measures, bankers should be in hig cotton right now. With the economy firing on a cylinders, loan demand from businesses and co sumers rose by a fat 7% in 1999. And thanks t

the industry's success at diversifying into other financial services such as mutual funds, insurance, and securities underwriting, many banks are seeing a sharp rise in their fee income as well. The bottom line: Michael L. Mayo, a banking analyst at Credit Suisse First Boston, estimates that the industry earned a record $70 billion in 1999, 12% more than the year before.

But despite that strong showing in 1999, there are storm clouds blowing. Three rate hikes by the Federal Reserve since last June—and the prospect of one or two more—are starting to crimp margins at many banks. The effect is all the more pronounced because many banks, having run through their deposit bases, have been forced to turn to higher-cost borrowed funds just to finance new loans. According to SNL Securities, the loan-to-deposit ratio at the nation's 15 largest banks has risen to 105%, up from just 88% in 1993. And the ratio runs as high as 140% at banks such as Comerica Inc. and KeyCorp.



GETTING RUSTY: *ATMs aren't the cash cows they used to be*

Fed hikes are also putting a damper on some of the banks' hottest markets. The Mortgage Bankers Assn. predicts that mortgage activity will decline by nearly a quarter by the end of 2000—a development that is squeezing earnings at many regional banks, including First Union, SunTrust Banks, and Huntington Bancshares.

LOOMING LOSSES. But the bigger risk to the industry's prosperity may be self-induced: The lending boom of recent years is producing a sharp rise in troubled loans, a development that normally doesn't show up until the economy slides into recession. Analysts blame the liberal credit standards of recent years. Loan losses, as a share of all outstanding loans, have already risen from 0.45% to 0.79% over the past two years. The number is heading upwards—and could hit 1.20%, Mayo warns, if the economy tips into recession. Says Washington banking consultant Bert Ely: "There's a lot of sludge on bank balance sheets that has been accounted for."

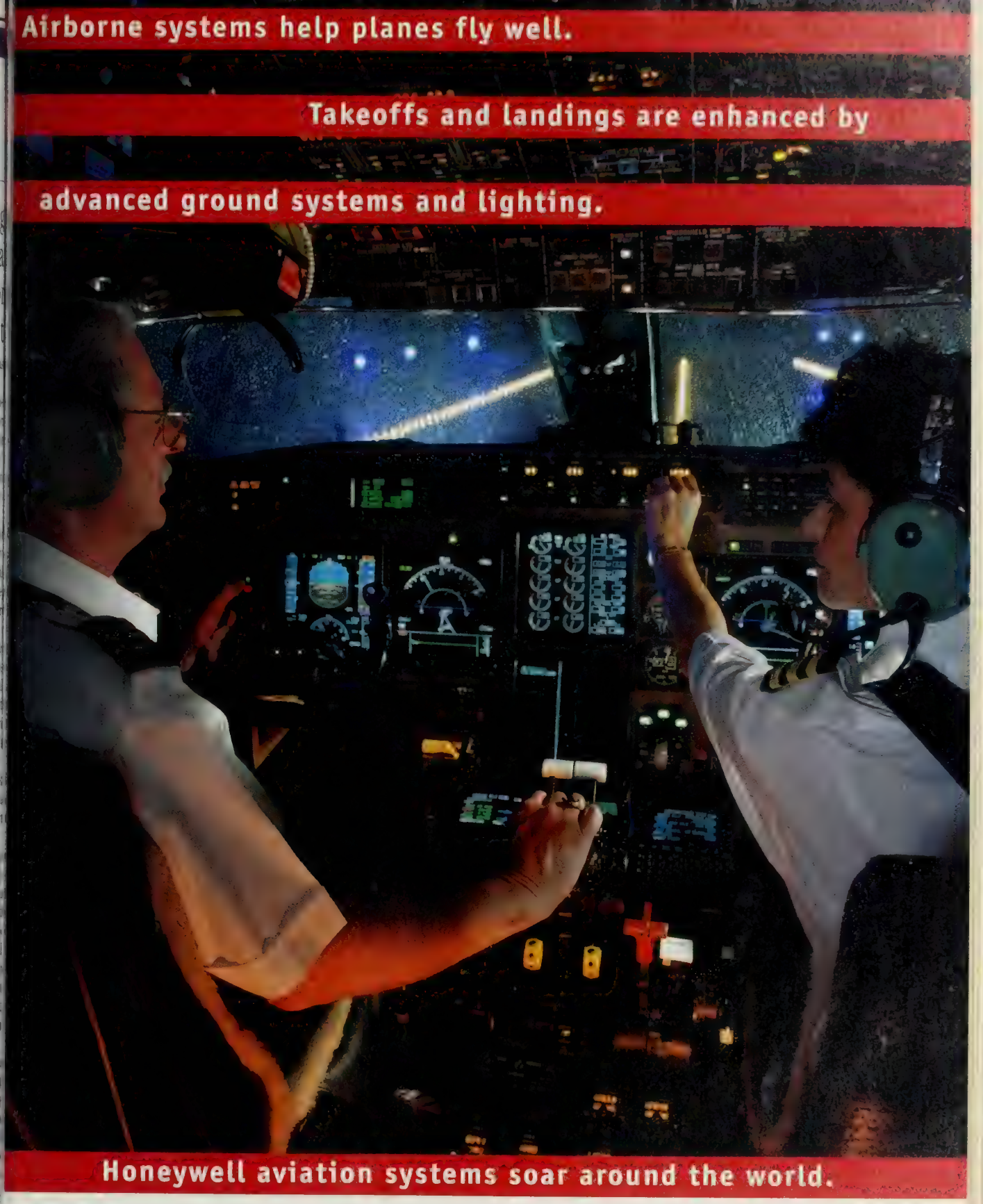
For their part, bankers maintain that th concerns are overblown. "As the econo slows, we will see loan losses rise, but I do think it will be a serious problem," says M. "Bud" Baker Jr., chairman of Wacho Corp., a North Carolina bank. "The quality most loans I see is still pretty good."

Even so, the reserves that banks set as to cover bad loans are at their lowest le since 1986, so many ban could feel pressure from r ulators to bolster those serves at the expense profits. Under the best s nario, Mayo predicts the emerging pressures cou cut the industry's pro growth in 2000 to arou 9%—and to 6% after facto ing out one-time gains. In slowing economy, ban could see their profits f further—if those shaky loa come a cropper.

Against this gloom, Ba One, First Union Cor U. S. Bancorp, and Nation City have all guided analys to lower their forecasts f 2000. Other banks may f low, say analysts, who seem especially wo ried by the industry's increasing reliance one-time gains. All told, the eight largest ban used $2 billion in gains from venture-capital i vestments in the third quarter alone.

Many on Wall Street are quick to note th the industry's plight isn't nearly so dire as the early 1990s, when a flood of soured real e tate loans created the most bank failures sin the 1930s. Thanks to the banks' success in d versifying their income stream away from th volatile lending business and into fee-base businesses such as mutual funds, "the indu try's capacity to absorb bad credits is muc more robust than 10 years ago," says David Berry, research director at Keefe Bruyette Woods Inc., a New York research firm. But f an industry now reveling in record profits, th fall back to earth could still be hard.

By Dean Foust in Atlant



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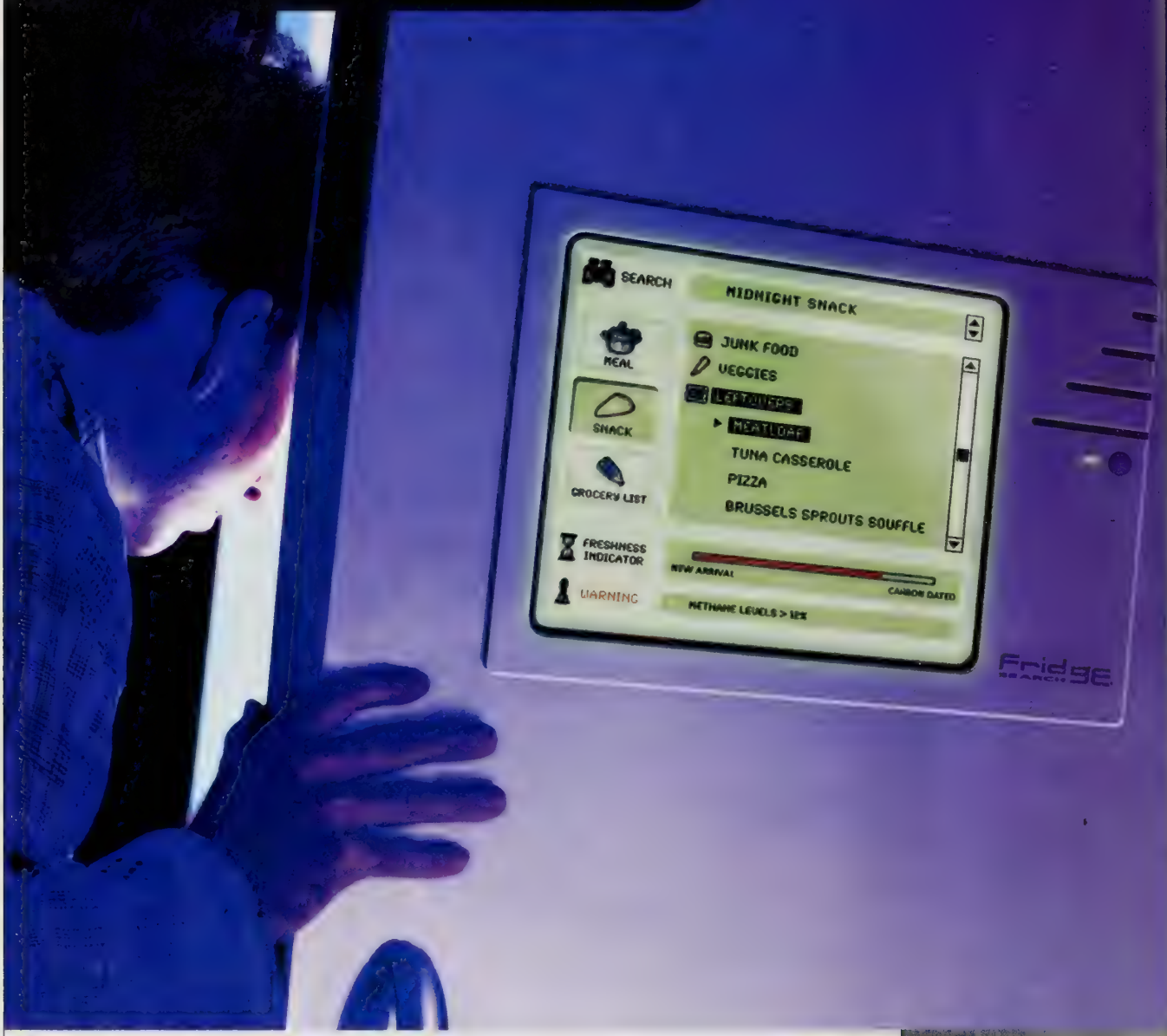

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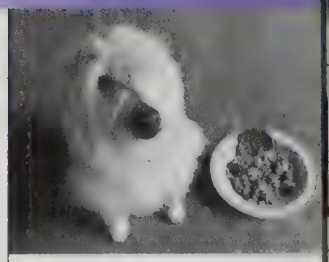

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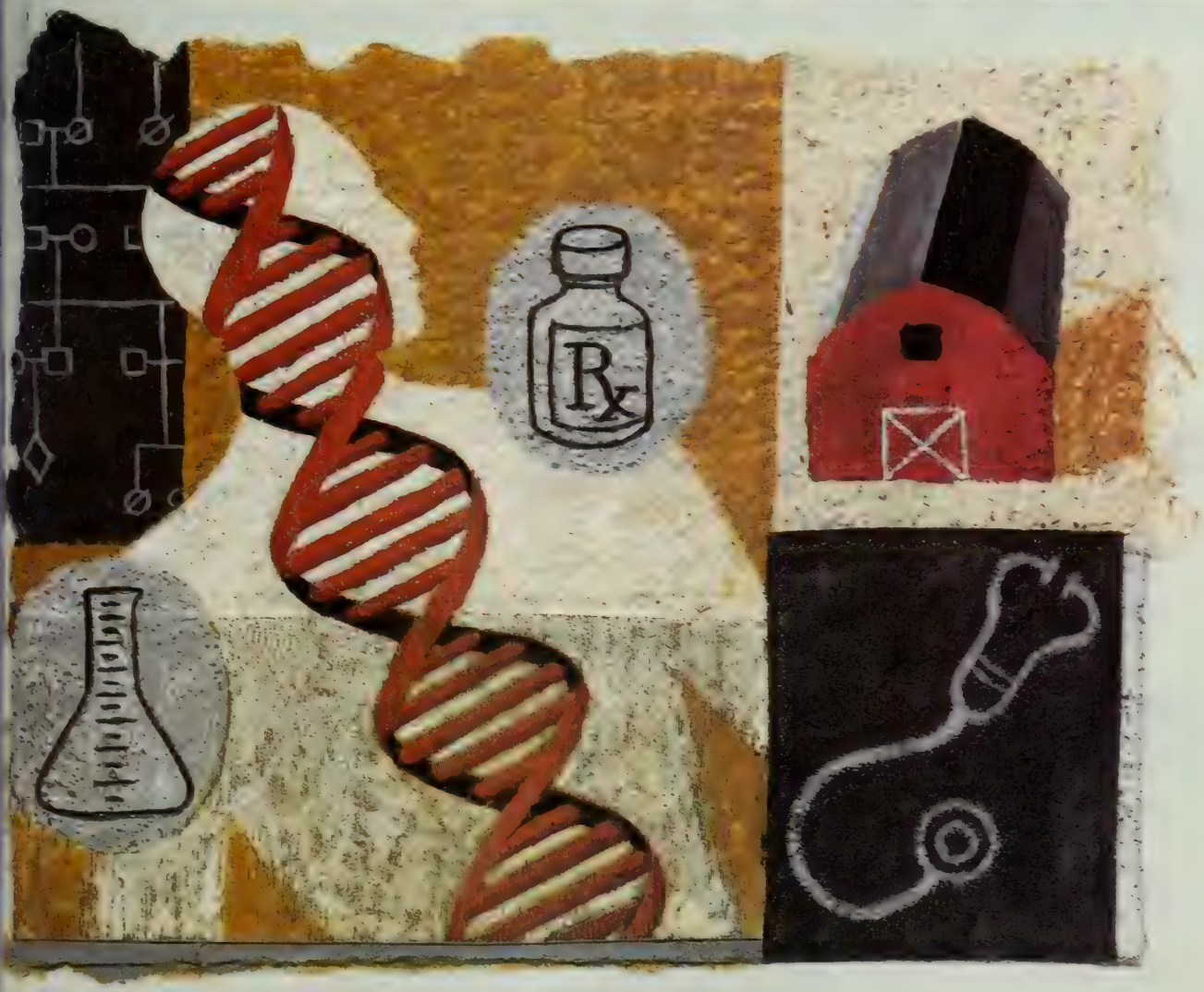


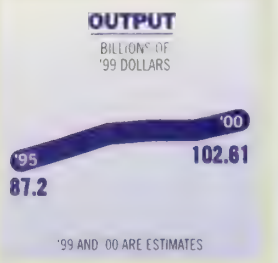
.10 **DRUGS** Fewer blockbuster drugs, expiring patents, and government pressures will sully what have been ideal conditions. Meanwhile, the dealmaking pace will speed up. *Revenue for 2000:* **+6.9%**

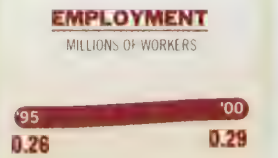
.12 **AGRICULTURE** With production surging, the long drought in prices may not lift—and then there's the ruckus over engineered foods. But if you're a cattle baron, you'll ride higher. *Revenue for 2000:* **+3.3%**

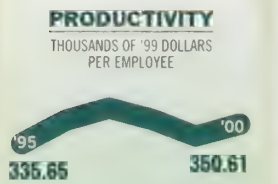
.14 **HEALTH CARE** Managed-care companies are under the weather, but Net startups in the sector are in the pink. E-health could be just the tonic for the whole industry. *Revenue for 2000:* **+5.9%**

DRUGS

PROGNOSIS 2000







DATA: STANDARD & POOR'S DRI

POSITIVES

- *Solid revenue growth is on tap as drugs marketed over the past few years continue to make gains.*
- *Consolidation frenzy in the industry should help drive stock performance for many possible takeover targets.*

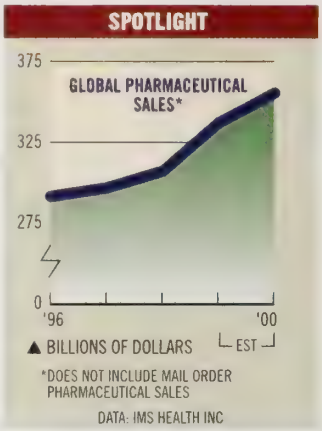
NEGATIVES

- *For many companies, the new-product pipeline is not as rich as it has been in recent years. Megamergers may not solve this problem.*
- *Patents on a number of big drugs start expiring in 2000. This will lead to heavy competition from generic drugs.*

For the pharmaceutical industry, the last few yea have been nothing short of ideal. Drug labs ha been churning out a string of fast-selling product With speedier approval of new drugs at the Food

Drug Administration, Washington was largely a benign force. And while managed-care companies grumbled about the rising cost of prescription drugs, they seemed unable to do anything to stop consumers from enthusiastically adopting expensive new therapies.

The coming year may mark a return to less ebullient times. While 2000 will probably be a decent year for the industry, it's unlikely to match the spectacular growth of the past year. According to market research firm IMS Health Inc., global pharmaceutical sales should be up 8% in 2000, to $363.8 billion, a slip from 1999's sales growth of nearly 10%. One reason for the slide is that there seem to be fewer new drugs with blockbuster potential in the 2000 lineup. At the same time, government debate over various plans, including one from President Clinton, to add a prescription-drug benefit to Medicare will help keep a spotlight on drug prices—and make it more difficult for companies to make major hikes. Those pressures will probably contribute to a wave of consolidation in the industry, presaged by the recent battle for Warner-Lambert Co. "There's much more uncertainty now than there was a couple of years ago," says Linda I. Miller, portfolio manager of the John Hancock Global Health Sciences Fund.



STILL YOUNG. Certainly, the industry will benefit from the strong product launches of recent years. According to Lehman Brothers Inc. analyst C. Anthony Butler, over 130 medicines rolled out in the U. S. since 1996 are still in their early, hot-growth phase. Among them are the cholesterol-lowering agent Lipitor, launched in 1997, and the arthritis drugs Celebrex and Vioxx, which hit the market in 1999.

And while 2000 is likely to be quieter in terms of hot new drugs, there are a few products to watch. Glaxo Wellcome PLC will introduce a drug for irritable bowel syndrome that SG Cowen Securities analyst Stephen M. Scala says will reach close to $1 billion in annual sales in four years. And in the same time frame, Scala says that Vanlev, a hypertension drug from Bristol-Myers Squibb Co., sla for a 2000 launch, may rack up $2 billion in nual sales. "That could be bad news for Me & Co. and Pfizer Inc.," warns Brown Broth Harriman & Co. analyst Michael Krensava since both of them have important hypert sion drugs.

More bad news looms for the industry in form of patent expirations. Between 2000 2004, drugs generating $43 billion in U. S. r enue will see their U patents expire or lose mar exclusivity under certain rules. That could trigger wave of cheaper, generic v sions of the drugs. Among drugs going off patent or los exclusivity next year are M ck's $2.3 billion hypertens drug Vasotec and Bristol-My Squibb's $1.3 billion diabe treatment Glucophage. Wh some companies have sav strategies for battling th generic competitors (box), o ers, including Merck & C could see generics eat i sales growth after the patents end.

Patent headaches are just one reason 2000 likely to be a year of dealmaking. As drug velopment and marketing costs continue soar, some pharmaceutical companies are lik to link up. A big merger, after all, offers c savings that can drive earnings for years. P er's hostile bid for Warner-Lambert Co., wh came after Warner struck a tentative agre ment to merge with American Home Produ Corp., could signal the beginning of a deal fr zy. Already, midsize players Pharmacia & U john and Monsanto Co. have followed suit w a planned merger of equals. And some a lysts figure that the recently announced plan SmithKline Beecham PLC Chief Executive ficer Jan Leschly to retire in April will pa the way for renewed merger discussions w Glaxo Wellcome. "The stars may be align for a couple big deals," says J. P. Morgan S curities Inc. analyst Carl Seiden.

Dealmaking won't be the only high priori for drug company chiefs in 2000. World Tra Organization rules require that all the memb countries put intellectual-property laws

r books by 2000. That is crucial to pro-
ing drug company patents in important
rging markets such as India and Argenti-
But about half of those member countries
yet to draft such rules. Schering-Plough
p. Chief Executive Officer Richard J. Ko-
says the pharmaceutical industry will press
l for passage of those laws. "We have to
staying power" on this, Kogan says.

he industry has even more at stake in the
ed debate about proposals to add pre-
tion drug coverage to Medicare. With the
sidential election race under way, Medicare
rm is fast becoming a political football. In-
ry leaders will fight any change that takes
sions about the purchasing or use of drugs
y from the private sector, since any sort of
ernment involvement is seen as a step to-
d price controls. But Merck CEO Raymond
ilmartin says passage of a major overhaul
nlikely this year. "It's likely there will be
e rhetoric than action," he says.

ven without a new law, the furor in Wash-
on may still affect the industry. According
MS Health, drug prices rose about 4.4% in
, up from the 1.7% rate in 1994. But most
ervers figure pharmaceutical prices won't
b quite as fast in 2000, as the industry
s care not to make itself a bigger target in
hington. In addition, managed care compa-
may be able to exert more pressure on
es as they expand the use of drug-coverage
grams known as three-tiered formularies.
der those systems, consumers typically
higher co-payments for more expensive
gs that the managed-care operator doesn't
believe are better than cheaper therapies.

At the same time, drug prices could be affected by a different but equally powerful force: the Internet. Stephen S. Tang, national director of consulting firm A. T. Kearney Inc.'s health-care industry practice, figures the online sale of pharmaceuticals will balloon from $585 million in 1999 to $1.4 billion in 2000. As those sales surge, more consumers will find it easier to compare the prices and benefits of products. "The Internet will be used by consumers to ferret out information and will have a deflationary impact," says Per G. H. Lofberg, president of pharmacy benefits management company Merck-Medco Managed Care LLC.

THE DEAL OPTION. For the biotechnology industry, 2000 is likely to be a year of improving health. Samuel D. Isaly, a partner with the research firm OrbiMed Advisors, figures that of the 500 biotechnology companies he tracks, 30 will make a profit this year, up from 16 in 1999. And the biotech dealmaking spree of 1999 is likely to continue. Last year, a number of biotechnology players were scooped up by big pharmaceutical companies. Highlights included Warner-Lambert's acquisition of Agouron Pharmaceuticals Inc. and Johnson & Johnson's purchase of Centocor Inc. Isaly says a number of biotech companies, including Vertex Pharmaceuticals Inc., which developed the HIV drug Agenerase, and genomics leader Human Genome Sciences Inc., could link up with or be acquired by big drug companies. For the pharmaceutical industry, dealmaking may be the most popular response to a more challenging year ahead.

By Amy Barrett in Philadelphia

Consumers will use the Internet to find the best price for drugs—a trend that could fuel deflation

THE MAKING OF A BLOCKBUSTER, PART 2

Looks as if the pharmaceutical industry is taking a page from Hollywood. Two of the highest-profile launches in 2000 should be the drug industry equivalents of a sequel to a movie blockbuster. AstraZeneca PLC is expected to roll out Nexium, a drug derived from its $6 billion anti-ulcer drug Prilosec, while Schering-Plough Corp. is on track to launch what's been dubbed "Son of Claritin," a new form of its blockbuster $2.7 billion allergy medicine.

PATENT ENDING: *Can it be extended?*

Why the sequels? These products are a way to preserve billion-dollar franchises long after the patents on those drugs run out. The plan is to get as many people as possible to switch from the older drug to the newer one. So when the patent on the original drug expires, there are fewer patients to be switched from that older drug to the cheaper generic.

The key to this tactic is finding a way to tweak the original molecule. Schering-Plough's "Son of Claritin"—which hasn't yet been named—is based on the molecule formed in the body as Claritin is broken down. A key patent ties to that molecule runs through 2014.

AstraZeneca, in developing its sequel to Prilosec, has taken a different approach. Prilosec, like many drugs, is a mix of two similar molecules called isomers, each the mirror image of the other. But only one is responsible for the drug's effects. By eliminating the other, AstraZeneca says it has come up with what seems to be a more effective compound. "It'll be an interesting year for marketing," says Lehman Brothers Inc. analyst C. Anthony Butler.

Others will try this maneuver as well. Eli Lilly & Co., for example, is developing the single-isomer form of the antidepressant Prozac through a licensing deal that it has with Sepracor Inc., a company that specializes in developing single-isomer drugs. While the Federal Trade Commission, which can review certain licensing transactions, is taking a close look at the agreement, Lilly doesn't expect the government to block the arrangement. If that's the case, Lilly, like AstraZeneca and Schering-Plough, may have found a way to protect its blockbuster.

By Amy Barrett in Philadelphia

AGRICULTURE

PROGNOSIS 2000

OUTPUT
BILLIONS OF '99 DOLLARS

'99 AND '00 ARE ESTIMATES

EMPLOYMENT
MILLIONS OF WORKERS

PRODUCTIVITY
THOUSANDS OF '99 DOLLARS PER EMPLOYEE

DATA STANDARD & POOR'S DRI

POSITIVES

- *Economic growth in Asia and South America could help boost U. S. exports.*
- *Hog farmers will recover slightly from a disastrous 1999, and an increased demand for beef should help cattle ranchers.*

NEGATIVES

- *The farm economy remains weak, and farmers' incomes are likely to fall sharply if Congress does not again provide emergency aid.*
- *Consumer concern about genetically engineered crops could cut crop prices.*

Early last year, hog prices briefly fell to $10 p hundredweight, or about $25 for a 250-pound li pig—the same price paid in the Depression yea of the 1930s. It was a disturbing indicator

the troubles that have plagued farmers for several years—and are likely to continue this year. In agriculture, good crops often mean bad news. Most farmers, not just the hog producers, are suffering from a surge in production—and from tumbling prices. The overwhelming question dominating talk of agriculture in 2000 is: When will the price slump end?

The answer to that depends upon the weather in the Great Plains, the political winds in Washington, and one wild card—the public's attitude toward genetically engineered foods.

If the recent spell of good weather continues, harvests are likely to be good again this year, and prices will remain low. And that's where Washington comes into play: The fall in prices is coming at a time when Congress is trying to wean farmers off of 60 years of government assistance. The 1996 farm bill called for a phaseout of government subsidies by 2002. But so far, Congress has been unable to refuse farmers' pleas for help. In each of the past two years, Congress has approved special payments to help struggling farmers—$6 billion in 1998 and $9 billion in 1999. And it could decide to do the same thing again, if farmers have another difficult year.

"That has offset what would have been very low market returns. It made cash flow look pretty good, in fact," says Keith J. Collins, chief economist at the Agriculture Dept. On Dec. 21, the USDA predicted that farm income in 2000, without help from Congress, will be $190 billion, compared with $192 billion in 1999.

One of the things expected to hold prices down is a large inventory, the result of four big crops in a row. "Each year, for the last few years, that inventory has been a little bigger than the year before," says Alan D. Barkema, an economist with the Federal Reserve Bank of Kansas City.

The large inventory is likely to continue to hold down prices until there is a c shortfall, Barkema says. And there is s concern that weather could lead to a shor this year, possibly tied to a weather patt known as La Niña, characterized by coo than-normal Pacific Ocean temperatures. that occurs, these inventories don't look big. Then crop prices could be a bit strong says Barkema. While some farmers could fer terribly as the result of bad weather, agriculture industry, over tends to benefit from weather—the percentage crease in prices is usu larger than the percent drop in production.

TOO GOOD: *Huge inventories may keep prices low*

BIOTECH BROUHAHA. The bright spot for the com year is in livestock, especi beef. While hog farmers have only a slightly bet year, cattle producers sho do well. Part of the reason increased demand, tied to booming U. S. economy: Am icans' per capita consumpt of meat hit a record high 1999. Hog producers might rescued by an expected crease in demand for bacon. McDonald's and other fast-f restaurants offer more sa wiches containing bacon.

One factor that might affect prices is public's growing concern about genetically m ified foods. Are farmers reacting by plant less biotech seed? No one knows for sure, Miller says projections show that "sales biotech seed are running similar to last ye Farmers are concerned, but they like the pr uct." If that's the case, it reflects a sharp parture from trends of the past four yea during which use of biotech seeds grew cover 76 million acres of American farmlan

Even so, concern about biotech crops is likely to have much of an impact on agric ture in 2000. While farmers can expect so relief from the low and even Depression- prices of 1999, it is likely to be at least other year before they can hope for an uptu in the industry's cycle.

By Paul Raeburn in New Yo

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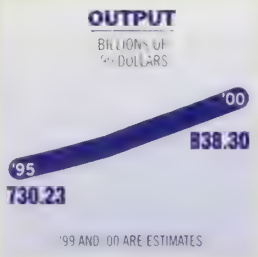
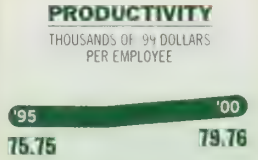
HEALTH CARE

PROGNOSIS 2000





DATA: STANDARD & POOR'S DRI

POSITIVES

- *The Internet brings new efficiencies. Electronic health-care schemes such as Aetna's E-pay will let physicians submit claims online.*
- *Mergers may let companies trim costs and exploit economies of scale.*

NEGATIVES

- *Medical costs are running ahead of premium hikes, so company margins will continue to be under pressure.*
- *Managed care has been hit hard by new legislation and fears of punitive damage awards.*

Psychiatrists examining the U.S. health-care sy tem might make the following diagnosis: sp personality or manic depression. In one corne managed-care companies in 2000 will struggle

maintain earnings while net margins languish at just 2% to 3%, on average. In the other corner, Internet-based health concerns will be on a tear. More than 100 e-health-care companies were launched in 1999—and several are very healthy indeed. Sixteen high-profile initial public offerings and two successful secondary offerings have amassed more than $1 billion in new capital.

In the sick corner, health-maintenance organization stocks lost an estimated 14% of their value in 1999. With enrollment in employer managed-care plans at almost 90% nationwide, untapped markets are scarce at best. "Earlier in this decade, managed care was a growing industry and everyone could thrive," says H. Gregory Solomon, an analyst at J. P. Morgan Securities Inc. "But the low-hanging fruit is gone."

DOCTOR'S ORDERS: *They're regaining control over patient care*

In addition to slowing growth, the industry is plagued by rising medical costs and an uncertain regulatory climate. In December, 1998, most companies confidently estimated medical cost increases of 3% to 5% for the coming year. But as the months waned, companies quietly began reporting upward trends of 5% to 6%—and in August, CIGNA Corp. reported 6.5% to 7%. One reason for the increases: the cost of prescription drugs, which rose 15% to 25% in 1999. Banc of America Securities analyst Todd B. Richter expects health-care costs will continue to increase. "The debate will shift from how to control health-care costs to how to finance them," he says.

Those efforts may be stymied by an ever more vocal public that is demanding greater access and flexibility in health-care plans. "The only way to succeed is to assuage the customer," says Solomon. That, he says, is what inspired United Health Group's November decision to give doctors final authority over patient care. Whether it boosts the bottom line for United, the decision has been a public-relations coup, garnering lavish praise from Congress and the American Medical A

For now, the health-care industry is pinn its hopes on consolidation and premium hi Deals such as the recent Aetna Inc.-Pruc tial HealthCare Group Inc. merger allow ganizations to trim costs, exploit economie scale, and gain leverage with providers. surers have also started raising premiu The average cost of employer-sponso health plans jumped 7.3% in 1999—nea three times the rate of g eral inflation, according consultants William Mercer Cos. In 2000, pr hikes may be still hig topping 9%. But as Banc America Securities' Rich points out, when medi costs skyrocket, "premi increases stop being ben cial to insurers and beco necessary to prevent pr losses."

E-health may be j what the managed-care ganizations ordered. cording to Credit Sui First Boston, at least of every health-care dol is eaten up by administ tion costs. A recent study by Northw Healthcare Network shows how the Inter can streamline such inefficiencies: It found t electronic referrals cost health-care compan one-tenth as much as paper referrals. Many surers, including Aetna and Oxford Hea Plans, are looking to beef up their Inter programs. Aetna already has two major W initiatives: EZenroll, which allows consume to sign up online, and E-pay, where physicia submit claims electronically and are guarante payment within 15 days. Such programs ma life easy both for consumers and their phy cians. Oxford, meanwhile, plans to use the N to promote its disease management progra

E-health is still new and relatively untest in the minds of many physicians. But as ma aged-care companies continue to search f new ways to reduce expenses, the Intern may provide some of the medicine so bad needed by the health-care industry.

By Ellen Licking in New Yo

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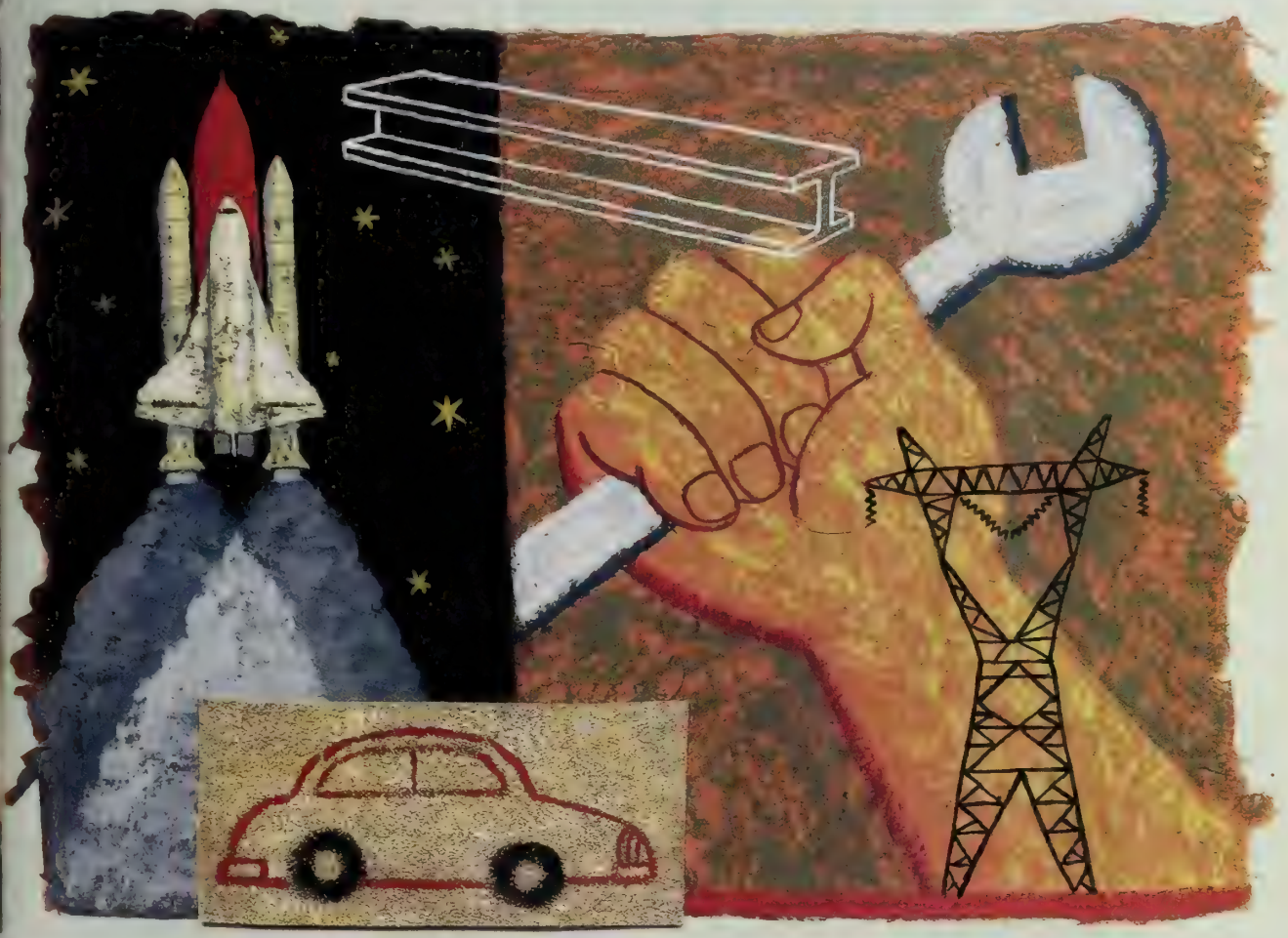


.18 **AUTOS** A slight decline is no problem when you start out this strong. But foreign carmakers will keep eating into sales. And any trouble at the pump won't help matters. *Revenue for 2000:* –0.9%

.23 **AEROSPACE** Don't expect last year's fog to lift much, as major carriers keep their checkbooks in their pockets. But there's one bright spot: More corporate demand for small jets. *Revenue for 2000:* –5.0%

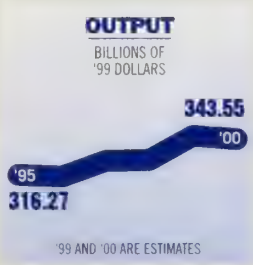
.24 **METALS** The economy is strong enough to keep demand robust, and imports are slipping. But steel has needed to consolidate for some time. Will it finally happen? *Revenue for 2000:* +3.2%

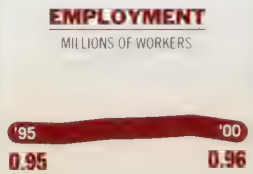
.26 **ENERGY** Expect merger mania to stay in high gear, with the demand for plump shareholder returns driving the dealmaking. And look for lots of asset sales to mollify the regulators. *Revenue for 2000:* +19.9%

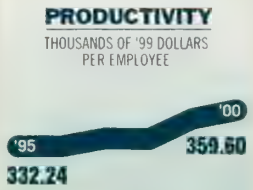
CE: STANDARD & POOR'S DRI

AUTOS

PROGNOSIS 2000







DATA: STANDARD & POOR'S DRI

POSITIVES

- *A strong economy will encourage spending on big, option-loaded cars and trucks that fatten bottom lines.*
- *Carmakers plan plenty of attractive new models and segment-crossing hybrids to whet consumers' appetites.*

NEGATIVES

- *Steeper interest rates on lease or finance plans could dampen sales.*
- *Rising gas prices might curb buyers' enthusiasm for gas-guzzling sport-utes and pickups—two of the industry's fastest-growing and most lucrative segments.*

Having been blindsided by last year's red-hot au market, forecasters are skittish about making pr dictions for 2000. But here's the middle lane: Aft increasing 7% in 1999 to a record 16.7 millic

vehicles, auto sales are likely to ease 4%, to 16.1 million units this year. The actual numbers from economists and auto analysts range widely, between 15.5 million and 16.5 million vehicles. But 16.1 million would still equal the second-best sales year in automotive history.

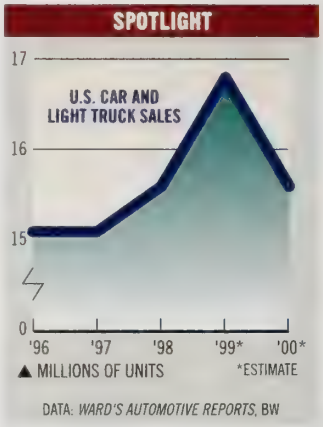
DaimlerChrysler corporate economist W. Van Bussmann has to laugh at the slowdown he's predicting: "People around here would have given their left arm for that kind of market a few years ago." Besides, he figures the worldwide total for sales of all vehicles—including buses and trucks—will continue to climb, to 55.1 million vehicles, or a half-million more than last year. General Motors Corp. President G. Richard Wagoner Jr. is also upbeat. "We think it's going to be another pretty strong year," he says.

Any time a market shrinks, though, the fight for market share becomes fiercer. What worries Wall Street is the sense of denial among auto makers. "Sales are going to decline, but everyone is telling us their profits are going to grow," says Morgan Stanley Dean Witter analyst Stephen J. Girsky. That's because auto execs believe they can cut costs faster than sales sink. But Girsky is skeptical. Detroit was losing ground to imports even while the market was expanding in 1999. Hanging on in a declining market will put prices and profits under the gun.

Even at the height of 1999's buying frenzy, pressure on pricing remained intense. Auto makers relied on the deal du jour to move cars off lots. "The price-cutting tells you that demand is not as strong as it looks," says Merrill Lynch & Co. analyst John A. Casesa. "It has become much more of a 'want' than a 'need' market." And such discretionary spending can dry up quickly.

The big fear is that declining sales could trigger an all-out war in rebates, lease deals, and cut-rate financing. When demand eases from 1999's fever pitch, carmakers with too much inventory are likely to slash prices further. Analysts and rivals worry that General Motors, with a hefty supply of cars and trucks in late 1999, might be the first to blink. " have to carefully watch GM's inventory," s Koichi Amemiya, Honda Motor Co.'s exe tive vice-president for overseas operations.

Still, forecasters are confident there plenty of reasons for auto sales to rem healthy. They cite low unemployment, ben interest rates, and pricing pressure that making cars more affordable than they've b in years. Americans feeling flush from bonu or fat stock portfolios cont ue to snap up luxury cars a option-loaded big sport-util vehicles.



So why won't 2000 mat last year? "Some of the t winds of '99 are going to away," says Lehman Broth Inc. analyst Nicholas Lob caro. Mortgage refinanci which yielded cash windfa for consumer spending, h slowed; the stock market more unpredictable, and ga line prices are higher. In fact sharp spike in gas prices is I troit's nightmare, since m profits come from gas-guzzling SUVs and pickups. December's $1.27 a gallon is a far from February's 91¢ low, but apparently yet enough to frighten buyers away. "Frank we thought there might be some pullbac admits Ford Motor Co. CEO Jacques A. Nass But "there hasn't been any impact yet." He f ures $2 a gallon might well be a threshold consumers to reconsider truck purchases.

TURF BATTLE. Barring such a gas-pump sho er, 2000 is expected to be the first full ye that trucks (a category that includes minivar SUVs, and pickups) outsell passenger cars. B tough new competition from Japanese, Sou Korean, and European models is starting dent Detroit's profit haven. Thanks in part new luxury SUVs, Mercedes and Lexus surg past longtime leaders Lincoln and Cadillac the head of the luxury pack. Import pressu will only intensify this year as Honda rais the output of its popular Odyssey minivan a introduces an Acura SUV.

To defend its truck turf, DaimlerChrysl whose industry-leading minivans have late been losing ground, will introduce a new ge

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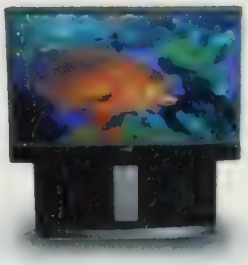

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eration of vans this fall. GM hopes to advance in the lucrative large SUV market with its new Chevy Suburban and Tahoe and GMC's Yukon lines. GM even promises to zoom past archrival Ford in big pickups for the first time in six years.

Detroit will also finally respond to the latest import craze: crossover vehicles. These hybrids typically combine a car chassis with SUV height and four-wheel drive. Ford's Escape and Pontiac's Aztek are aimed squarely at this market, currently dominated by the Japanese. And Chrysler's PT Cruiser combines the roominess of a minivan with the economy of a small car. Domestic designers also have some other crossover tricks up their sleeve. Dodge's Dakota Quad Cab and Ford's Explorer Sport Trac offer a roomy, SUV-size passenger cab with a pickup bed in back. Lincoln's Blackwood offers an upscale version of the combo for the hunt-club set.

When it comes to cars, though, Detroit's prospects may be grimmer. With Volkswagen's sales alone soaring 45% last year, maintaining share will be tough. Still, Detroit's new "If you can't beat 'em, buy 'em" strategy means that rising sales of Jaguars, Volvos, and Saabs now add to the U.S. tally.

Across the Atlantic, the outlook is just as sour. European auto makers face "massive price compression," Girsky says. "The European auto industry is like the U.S. auto industry—only without light trucks. It's ugly." It's even uglier for GM and Ford. Their European operations are still in the red—and the situation in Latin America isn't much better.

As for the merger mania of the late 1990s, it's not over. But now more of the action will shift to Asia and Honda. President Hiroyuki Yoshino predicts these deals "will not be on the same scale as last year." With DaimlerChrysler anxious to bolster its Far East position and one or two truckmakers on the auction block in Japan, the transatlantic company could snare a significant piece of Japan's truck market.

In Detroit, GM execs will have a tough time, because replacement vehicles in key segments are several years away. "Y2K is going to be a very long year" for GM, says Lobaccaro. Debate about sinking market share could play a role in the competition to succeed Chairman Jack Smith, who could retire as early as this year.

Across town, Chrysler is regrouping after a rocky first year of marriage with Daimler and an exodus of senior managers. The new president on the U.S. side, James P. Holden, is trying to rebuild morale and turn attention back to regaining design momentum.

And Ford is plunging ahead with schemes for implementing CEO Nasser's vision of transforming the auto maker into a provider of consumer goods and services. Nasser's goals call for expansion into auto-related services such as insurance and recycling, as well as Internet-based systems for linking consumers, dealers, factories, and suppliers.

Coming off the best year ever, nobody's taking time to gloat. The Big Three are too busy worrying that they may have to eat their words about profits if 2000 turns into the promotional riot that some fear.

By Kathleen Kerwin in Detroit

The big fear is th a small decline i sales will trigger a all-out war in rebates and cut-rate financing

BUY OR BE BOUGHT

Japanese auto makers fought hard against the wave of mergers that is reshaping the industry. Yet by the close of 1999, 40% of the cars made in Japan had mixed pedigrees.

This year, foreign investment will probably continue rolling in. Although Japan's domestic auto market is projected to grow 2%, most vehicle makers are running on fumes. The stronger yen plus rising production in Japanese factories in Southeast Asia and North America will clamp a lid on exports directly from Japan, leaving many makers with overcapacity. The expanding Asia base is "bad news for Japanese production," says Ashvin Chotai, auto analyst at Standard & Poor's DRI in London.

STYMIED: *Japan's auto industry faces slow growth*

Among the various acquisition targets, Nissan Diesel Motor Co. is a prime candidate—provided its bankers will forgive at least part of the truckmaker's massive $4.9 billion debt. Some analysts expect Isuzu Motors Ltd.'s heavy truck division may go on the block as well. If DaimlerChrysler takes both baits, it could end up with as much as a third of Japan's truck business.

Not all Japanese auto makers are vulnerable. Indeed, mighty Toyota Motor Corp. is itself on the prowl for an acquisition in Europe, according to Koji Endo, automotive analyst at Schroders Japan Ltd. in Tokyo. With the aim of getting set up quickly, Toyota will probably ignore the small fry and go after a major company, such as Italy's Fiat or France's Peugeot. Toyota says there are no discussions, as yet.

Back home, to get a headstart in the competition to roll out wireless networking for drivers, Toyota in December uncorked a surprise: When three Japanese telecom companies complete a merger this year to form Japan's second-largest communications conglomerate, Toyota expects to become the No. 2 shareholder—thanks in part to an earlier stake in one of the three partners. Tentatively named KDDI, it will be second in size only to giant Nippon Telegraph & Telephone Corp.

By Emily Thornton in Tokyo

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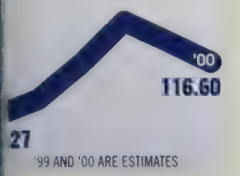
AEROSPACE

OGNOSIS 2000

OUTPUT
BILLIONS OF '99 DOLLARS



'99 AND '00 ARE ESTIMATES

EMPLOYMENT
MILLIONS OF WORKERS

PRODUCTIVITY
THOUSANDS OF '99 DOLLARS PER EMPLOYEE

DATA STANDARD & POOR'S DRI

POSITIVES

General aviation sales d the regional markets ll be hot. In addition, ense procurement ll rise.

The commercial rket could rebound if global economy perks and Asia's comeback ves sustainable.

NEGATIVES

Airlines already ught planes to comply th new noise rules. ere won't be repeat rchases for noise in 00.

Despite fatter defense dgets, Washington may lay purchases of rious military aircraft.

For the defense and aerospace industry, the best thing about 2000 is that 1999 is over. Last year brought one unpleasant surprise after another, including disastrous financial performances by two of the industry's Big Three—Lockheed Martin Corp. and Raytheon Co. But this year may not be a whole lot better. The industry is expected to continue its lackluster performance.

To get an accurate view of the aerospace industry, you have to dig: The past year's downward spiral doesn't show up in the overall numbers. Sales climbed 5%, to a record $155 billion in the U. S., while the sector's $10.8 billion in aftertax profits was the best ever, according to the Aerospace Industries Assn. (AIA). But more than half of the earnings came from nonoperating income, such as Boeing Co.'s sale of its light commercial helicopter line. Excluding such extraordinary items, profits plummeted 34% from 1998.

BRIGHT SPOT: *Military aircraft sales are expected to rise 5% in 2000*

The slump will continue in the coming year. The AIA projects that revenues will decline to $149.4 billion, largely because of a drop in commercial aircraft sales. Plane sales got a temporary boost in 1999 when airlines rushed to buy quieter aircraft to comply with new, reduced-noise rules. But there won't be a repeat of that in 2000. And while industry execs hope that an Asian recovery will eventually provide relief, it won't happen this year. Sales of commercial aircraft will slide 16%, to $45.7 billion, the AIA predicts.

Aggravating matters, from a U. S. standpoint: Airbus overtook Boeing in 1999, winning two-thirds of big-aircraft orders as the Seattle company stopped low-balling bids to win market share. Airbus likely will transform itself from a marketing consortium into a private company this year. Then it, too, will have to watch earnings more closely.

There is one bright spot amid the gloom: small corporate jets. Outfits offering jet services that are shared by several companies "have ordered gobs of airplanes," says analyst Paul H. Nisbet of JSA Research Inc. That's good news for General Dynamics Corp.'s Gulfstream, as well as rivals Embraer in Brazil and Canada's Bombardier Inc.

The picture is also brighter for military sales. The AIA expects military aircraft revenues to rise 5%, to $37.5 billion, as some of the programs in development move to the more lucrative production phase. These include the Navy's F/A-18E/F Super Hornet, made by Boeing, and the Air Force's F-22 Raptor, built by Lockheed Martin.

PORTFOLIO PRUNING. Also, like last year, nonoperating earnings could make a substantial contribution to profits. Prime contractors will "go through another round of portfolio pruning," says Jon B. Kutler, president of Quarterdeck Investment Partners Inc., an aerospace investment banking firm. Lockheed Martin, for instance, already has its Sanders electronics unit on the block.

One wild card is the impact of the recent consolidation in Europe. British Aerospace took over GEC-Marconi's defense businesses to create the world's second-largest defense contractor, while France's Aerospatiale Matra, Germany's DaimlerChrysler Aerospace, and Spain's Construcciones Aeronauticas have merged to form another formidable competitor. But it's an open question whether the newly merged companies will wrest market share from their U. S. rivals or experience the same growing pains that have hampered American arms makers.

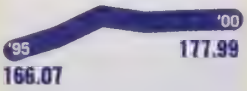
Over the longer term, if the global economy perks up and Asia's comeback proves sustainable, the commercial market could rebound. Healthy airlines, for example, have the money to expand their fleets, if they choose. But the long-term outlook is bleaker on the military side. Hardly anyone believes the Pentagon budget will grow enough to bankroll the $340 billion in tactical aircraft slated to be bought over the next 30 years. Given all these trends, it's no wonder whole sections of this once high-flying industry have come down to earth.

By Stan Crock in Washington, with William Echikson in Brussels

METALS

PROGNOSIS 2000

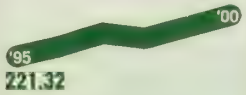
OUTPUT
BILLIONS OF '99 DOLLARS



'99 AND '00 ARE ESTIMATES

EMPLOYMENT
MILLIONS OF WORKERS

PRODUCTIVITY
THOUSANDS OF '99 DOLLARS PER EMPLOYEE



DATA STANDARD & POOR'S DRI

POSITIVES

- *Trade barriers have stemmed the flood of cheap steel imports.*
- *Strong economy helps many steel companies rebound.*
- *Aluminum mergers seem to be boosting sagging prices.*

NEGATIVES

- *Costs will go up for steel labor, scrap, and taconite pellets.*
- *Dream of steel industry consolidation remains unfulfilled.*
- *Big integrated steel companies like LTV continue to be laggards.*

With Washington's help, the U.S. steel industry h beaten back a devastating flood of cheap forei imports. A robust economy, led by extraordina demand for autos, has also helped bring prices a

earnings back to healthy levels. This year, the industry is poised to build on 1999's gains. But Big Steel's big question still looms: Will it finally bite the bullet and undergo a long-overdue consolidation, just as aluminum did?

The good news for steel is that a strong economy should keep demand robust, even though some analysts expect revenue growth to slow slightly in 2000. Imports will retreat from a record high of 23% of total consumption this year to about 21%, as antidumping duties and the Asian economic recovery do their work. "Prices are being restored," says Curtis H. Barnette, chairman and chief executive of Bethlehem Steel Corp.

COOLER MILLS. One pleasant surprise in 1999 was the big surge in auto production, to nearly 17 million units. That kept mills rolling out high-quality product. Demand for sport-utility vehicles, in particular, has been so strong that some mills are working at better than 100% of normal capacity. But that adds expenses in maintenance and overtime that have actually eaten into profits.

MELDING: *Consolidation has been staved off, but it's still coming*

Not to worry, though. Auto demand is expected to cool to a more manageable level of about 16 million units in 2000, giving mills a breather. "We'll go back to operating at 92% to 93% capacity," says David S. MacGregor, a steel analyst at MidWest Research in Cleveland. At that point, "steel becomes more profitable," he says. Other sectors, including office equipment, appliances, and construction materials, will continue to have a healthy appetite for steel as well. As long as consumer confidence remains positive and durable-goods spending holds up, "I am expecting another good year," says MacGregor.

Yet the generally good prospects will depend on the continued cooperation of the Clinton Administration in playing international watchdog on such issues as dumping. After the Asian and Russian economic crashes of 1997, exporters sought new homes for their product in the U. S. By 1998, imports clim to a record level of 41 million tons. Retrea from his free-trade stance, Clinton took ac against Russia, Japan, and Brazil, among o nations. The result: Imports slipped to 34 lion tons and should drop to about 32 mi tons in 2000. "We've seen a dramatic im where the trade cases have gone the course," says Andrew G. Sharkey III, pr dent of the American Iron & Steel Institu

These measures, plus strong economy, h staved off what many sider to be inevitable solidation in the indus But the dam won't hold ever. While such minin as Nucor Corp. and S Dynamics Inc. have b thriving, not all of the h dozen big, integrated st makers are firmly in black. LTV Corp., wh stock slipped by half, about $3 a share, is st gering under production management problems. alysts believe LTV is rip be carved up by comp tors. Consolidation, M Gregor says, "is out there—you know it's c ing at you, but you don't know where."

For an idea of what might be in store steel, consider the aluminum industry, whic in the middle of a massive reorganizati Canada's Alcan Aluminum Ltd., the No. 2 minum maker, is buying France's Pechi and Switzerland's Algroup. Not to be outd No. 1 Aluminum Co. of America is buy No. 3 Reynolds Metals Co.

Thanks to consolidation and the strong ec omy, aluminum prices zipped from 55¢ to per pound in 1999. No one expected 1999 to that good, says Thomas Van Leeuwen, a m als analyst at Credit Suisse First Boston. A he expects to be singing the same tune at end of 2000. Indeed, Alcoa's stock more th doubled in the past year and topped $80 share, a record high. While the aluminum dustry may have its own dynamics, you bet Big Steel is taking a very close look.

By Peter Galuszka in Pittsbu

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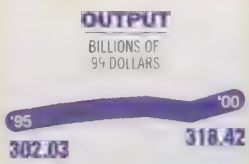
ENERGY

PROGNOSIS 2000



'99 AND '00 ARE ESTIMATES

DATA STANDARD & POOR'S DRI

POSITIVES

- *Demand for petroleum is rebounding, especially in the oil-guzzling Asian markets.*
- *The oil industry's merger wave is slashing spending, largely because of a need to beef up shareholder returns.*

NEGATIVES

- *OPEC has a poor track record of managing production.*
- *Western industrial powers are beginning to get restive about high energy prices.*
- *U.S. companies will move more investment and production offshore.*

In 2000, the energy industry is likely to be don nated by two concerns: oil prices and a hunt f higher shareholder returns. Executives can't much about the former. But the drive for high

returns is likely to promote a stream of deals. "What matters in the industry is not how big you are but your financial results," says J. Robinson West, chairman of Petroleum Finance Co., a Washington-based consultant.

Prices will still be important to those returns. In 1999, the industry received unexpected relief when prices climbed out of the doldrums to their current $25-per-barrel range, thanks to OPEC's decision to make big production cuts—and largely stick to them. Although pricing is difficult to predict, 2000 should be a good year. Inventories are falling; the oil-guzzling economies in Asia are picking up; and OPEC is showing greater resolve than ever before.

If North America and Europe experience cold winters and OPEC continues to be stingy, prices as high as $35 a barrel are possible, say some analysts. But most feel that a range of $18 to $21 is more sustainable. As evidence of industry thinking, Fergus MacLeod, Managing Director of Deutsche Bank Energy Research in Edinburgh, says the recent $550 million sale of a North Sea property by Repsol to Kerr-McGee Corp. was valued on an $18-per-barrel basis.

PUMPING OUT PROFITS: *Prices of $35 per barrel are possible*

Even $18 oil is good news for companies that suffered through $14 average prices for 1998 and $16 in 1999. Deutsche Bank expects a 20% jump in oil company profits this year.

Paradoxically, it was 1998's low prices that galvanized the industry, forcing companies into megamergers that have dramatically reduced costs and headcount. Scale brings rewards: The world's four largest companies—Exxon Mobil, BP Amoco, TotalFina, and Royal Dutch/Shell returned an average of 31.5% to shareholders over the last 12 months, compared with 8.7% for the next six companies. The deals also shifted the balance of power away from the U.S., where the industry had been centered. Three of the four largest oil companies—BP Amoco, TotalFina, and Royal Dutch/Shell Group—are based in Europe.

New dealmaking may move in different rections. A lot of the obvious megamerg have already gone through, and regula may be reluctant to allow more—unless newed price collapses seem to warrant U.S. authorities, for instance, have put r blocks in the way of BP Amoco's propo purchase of Arco. MacLeod of Deutsche B thinks that if prices remain relatively h the big companies could start going a smaller independent ex ration and production c panies, such as Lasmo and Enterprise Oil PLC Britain and Anadarko troleum Corp. in the U Whatever they buy, com nies will be shuffling ass to gain greater efficie Many will concentrate t activities on specific m kets, regions, or basins. swallowing Arco, for ex ple, BP Amoco would g a strong position on West Coast of the U.S. big mergers in particu will lead to huge asset s as companies re-tune t portfolios and move to isfy regulators. Meanwhile, American com nies will continue to move investment production out of the U.S., where costs rising because the easy oil and gas depo have been found.

In preparation for these shifts, countries well as companies will have to make the selves competitive—or they won't get the vestment dollars. Many oil execs are wat ing Kuwait, which is finally liberalizing r that have kept foreign companies out. I too, is courting industry, and can probably pect increased investment in the coming ye Russia, on the other hand, badly needs inve ment dollars to sustain production. But its p track record in protecting investors, such as Amoco, could turn off other multinationals.

Assuming prices remain strong, compan and oil-producing countries should do w next year—but only if they make the sm competitive moves.

By Stanley Reed in Lon

a
simple test
for companies
of all sizes
interested in
digital copiers

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DISTRIBUTION

30 **RETAILING** The good times will keep rolling and the big retailers will keep getting bigger. With inflation low and confidence high, the only drag will be shopper fatigue. *Revenue for 2000*: **+6.1%**

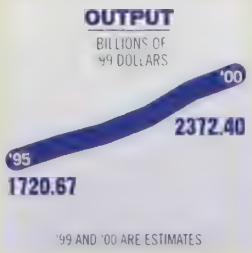
32 **FOOD** Eating out and ordering in—these trends spell bad news for food packagers and supermarkets but augur a golden age for restaurants and services. *Revenue for 2000*: **+4.4%**

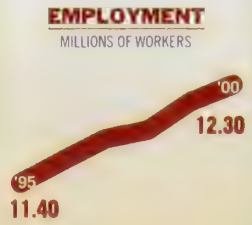
34 **TRANSPORTATION** More traffic on the I-way will mean more traffic on the highways. The carriers best positioned to cash in on e-commerce will be package express companies. *Revenue for 2000*: **+4.9%**

STANDARD & POOR'S DRI

RETAIL

PROGNOSIS 2000





POSITIVES

- *Traditional retailers making the switch to selling online will see cost savings in real estate and employee payroll.*
- *Sales should pick up in Asia and continue strong in Europe, benefiting retailers like Wal-Mart overseas.*

NEGATIVES

- *It's still difficult to get salespeople and maintain lower salaries in an economy with such low unemployment.*
- *Traditional retailers that aren't aggressive online will lose out to fleet-footed Internet startups.*

The dominant themes of U.S. retailing in 2000 w be that the good times are still rolling and t big are getting bigger. The National Retail Fede tion forecasts a slowdown in growth this year–

about 5.5%, compared with 7.6% in 1999. But last year's sales growth was the best since 1992. Holiday sales alone hit records, jumping 8.1%, to $574 billion, estimates Carl E. Steidtmann, chief retail economist at PricewaterhouseCoopers. And given that the total, in the federation's estimate, is $900 billion in revenues, 5.5% growth is nothing to sneer at.

Within this huge arena, the companies that have come to dominate traditional and online retailing will extend their leads, industry experts agree. "What you're seeing is a real polarization of performance, with a handful of companies doing quite well," says Steidtmann.

Indeed, with inflation low and confidence up, the only drag on the top retailers this year will be shopper fatigue. "Consumers bought a ton of goods" in 1999, notes Robert F. Buchanan, an analyst at A. G. Edwards Inc.

Kevin Mundt, an analyst at Mercer Management Consulting Inc., expects national discount stores and large efficient operators such as Wal-Mart Stores Inc. and Target Stores to be winners this year. Wal-Mart plans to add about 165 new supercenter stores, which sell groceries and general merchandise, bringing the total to over 800. That will help push fiscal year 2000 sales up 18%, to $193.7 billion, estimates Lehman Brothers Inc. Other highfliers could be "category killers" and variety stores such as Best Buy, Home Depot, and Bed Bath & Beyond.

Online shopping opportunities will also diversify in 2000. The 1999 holiday season's online sales, which by A.G. Edwards' Buchanan reckoning hit $9 billion and shaved 1% off same-store sales, indicate what's to come. Net sales are forecast almost to double, to $39 billion, in 2000, according to Forrester Research Inc. Part of the action will go to traditional retailers, some of whom are teaming up with Net players. Last November, for example, Radio Shack operator Tandy Corp. announced a partnership with Microsoft Corp. aimed partly at expanding on the Net. As more housel swarm onto the Net, "we will be a big be ciary," declares Tandy CEO Leonard H. Rob

Wal-Mart, Home Depot, and other first retailers are counting on their formidable br supply partnerships, and marketing expe as they expand their cyber-storefronts. But face daunting challenges—including conflicts their existing businesses and questions a how to fund online proj None of this is insurmount But Merrill Lynch & Co. an Henry M. Blodget points that online and off-line reta are as different "as televisio from the newspaper busines

If the brick-and-mortar cr is searching for sober strate studying Net ventures w provide many clues. Lea such as eToys, Buy.com, Amazon are invading one an er's turf in helter-skelter f ion. "We want to sell everyt to everybody," says Joseph G Amazon.com Inc.'s president a result, the online pioneer's enues could rise 42% in 200 $2.62 billion, says Merrill's B get. But he still doesn't ex Amazon to be profitable.

Chances are, investors continue to cut Amazon s slack on earnings. In the on world, size seems to matter more than profits 2000, the race will be especially feverish bec only two or three leaders are expected to sur in each major retail category. The number U. S. households shopping online will prob swell 39%, to 28 million this year, Forrester timates. But after that, growth rates may dec

To Bill Bass, vice-president of e-commerc Lands' End, a leading apparel merchant onl all signs point to a shakeout. "We will see m ket share start to crystallize as people bec more habitual in their shopping," he says. day's e-tailers have a head start. By next Chr mas, though, traditional retailers will be climb over the bodies of startups. The ground will bloody—but the fireworks should be absorb

By Heather Green in New York, w Stephanie Anderson-Forest in Dallas

OVERLOAD: *Shoppers will need a break to pay debt*

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FOOD

PROGNOSIS 2000

OUTPUT
BILLIONS OF 99 DOLLARS

'99 AND '00 ARE ESTIMATES

EMPLOYMENT
MILLIONS OF WORKERS

PRODUCTIVITY
THOUSANDS OF 99 DOLLARS PER EMPLOYEE

DATA: STANDARD & POOR'S DRI

POSITIVES

- *Vendors of frozen and fresh-prepared foods in supermarkets do a brisk business catering to time-strapped consumers.*
- *Food suppliers like Heinz, Campbell, and Bestfoods may consolidate to create stronger players.*

NEGATIVES

- *With less home cooking, retail demand for ingredients could weaken.*
- *Consolidation may spell fewer brands and less consumer choice.*
- *Food safety scares are considered inevitable and could hurt whole product categories.*

Americans still spend just 15% of their disposal income on food–the same percentage as 20 yea ago. But as the number of dual-income househol rises, and more Americans log longer hours in t

office, spending patterns are changing. In 2000 these changes will have a significant impact on the packaged food, restaurant, and supermarket sectors.

In a nutshell, people are cooking less food at home, which spells sluggish growth for ingredients people stock in their kitchens. In 1999, only 8¢ of the 15¢ spent on food in every consumer dollar was for home preparation of food, and that number is headed south. At the same time, the portion spent on restaurants is growing. Take-out and delivery services, in particular, are becoming primary drivers of restaurant industry traffic, according to Hudson Riehle, National Restaurant Assn. (NRA) vice-president for research.

GOLDEN AGE. Macroeconomics bears heavily on this shift. With continued low unemployment in the U.S., 4% growth in gross domestic product, and an increasing number of working women, the eat-out and take-out markets can only get richer. "We may be in the golden age of restaurant retailing," says Alan F. Hickok, restaurant analyst with U.S. Bancorp Piper Jaffray. All told, the restaurant sector pulled in an estimated $350 billion in revenues in 1999. That number should grow about 5% this year, according to the NRA.

This migration out of the home kitchen spells trouble for packaged-food vendors. Supermarket sales are expected to rise only 2% in 2000, to $449 billion. And in 1999, for the first time, stores selling food and drugs dedicated more space—56%—to nonfood products than to food products, according to the Food Marketing Institute in Washington.

Food manufacturers and supermarkets are fighting back with new products and high-tech amenities. Across America in 1999, there was an explosion of fancy in-store delis selling freshly made dinners and restaurant-licensed food. National store chains such as A&P installed self-scanners to speed up the checkout lines. Shops began stacking more vitamin-enriched cereals and juices in the aisles. stores started planning "health oases" w special-interest customers such as diab can find all of their food, vitamin supplem and medical goods in one place.

Now, get ready for "cell food"—a new of consumables aimed at hungry American the move and on the phone. Entrees you eat with one hand while talking or drivin clude ready-made peanut butter and jelly s wiches and microwaveable scrambled eggs are squeezed from a

KITCHEN SINKING: *Less home cooking spells bad news for food packagers*

This year will also continuation of 1999's Supermarket Sweep which large retailers as Safeway and Kr scooped up smaller ch to extend their reach offer lower prices. Co idation will spill into packaged-food area, predicts John M. McM a Prudential Securities alyst. He lists Qua Bestfoods, Heinz, Ral and Nabisco as likely ticipants in mergers.

Vendor consolidation will affect what see on the supermarket shelf, whether ket or cans of soup. "There's concern that we too much variety in the aisles," says Mic Sansolo, senior vice-president at the Food keting Institute. It's difficult to keep all t products stocked, and customers get frustr when they can't find what they want. T one reason Unilever is reducing its 1,600 and consumer products to just 500.

Both distributors and producers will fi few things to be thankful for in 2000. Des blaring hype, Internet grocers such as Pe and Webvan pose little threat to regular cers: They'll account for less than 1% of t grocery sales in 2000, according to FMI. C modity prices should also be stable, plea producers. After rising 12% in 1999, prices beef loins and ribs should increase only 2 3% this year, predicts David Weaber, rese director at Cattle-fax, a beef marketing mon In short, the food fights will continue in 20 and nobody will run out of ammunition.

By Ann Therese Palmer in Chic

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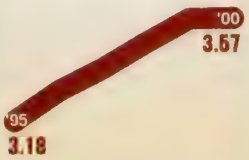
TRANSPORTATION

PROGNOSIS 2000

OUTPUT
BILLIONS OF '99 DOLLARS

'99 AND '00 ARE ESTIMATES

EMPLOYMENT
MILLIONS OF WORKERS



PRODUCTIVITY
THOUSANDS OF '99 DOLLARS PER EMPLOYEE

NOTE: EXCLUDES AIRLINES
DATA: STANDARD & POOR'S DRI

POSITIVES

- *Growth in e-commerce should boost demand for truckers and express carriers that deliver directly to consumers.*
- *Recovery in Asia will increase global trade, which would lift shipping volumes.*

NEGATIVES

- *E-business and just-in-time manufacturing can mean smaller quantities are shipped—a potential blow to railroads and large-shipment truckers.*
- *Expect a drop in shipping in first quarter as companies work off Y2K-related inventory buildup.*

Wind the clock back a few years, and you proba wouldn't hear guys who earn their paychecks ha ing freight happily lapsing into technobabble. E today, nearly everyone in the transportation indus

will regale you with tales of slick Web sites, millions invested in information systems, and the importance of computers and networks. "Without information technology we'd just be carrying boxes around," says Dawson Cunningham, chief financial officer for Roadway Express Inc. in Akron, Ohio. Customers now demand more, he says.

Old economy, meet the new. As e-commerce gains traction, it's kicking up opportunities all over the transportation sector. That means the coming year should be a good one for freight companies—at least those that can deliver small loads quickly. Parcel carriers, express delivery services, and "less-than-truckload" freight haulers should ride the wave of e-commerce to new revenues and profits. But full-load truckers and railways may have a harder time. "The whole movement toward just-in-time manufacturing and e-commerce has made for more shipments of smaller quantities moving faster," says Hugh Randall, head of Mercer Management Consulting Inc.'s transportation group. "And that hurts truckload carriers and railways."

TECH TROUBLE: *The e-mail revolution is a challenge for FedEx*

Even they may see some modest improvement in 2000, however. The transportation sector typically grows at about the same rate as the economy. As long as the current expansion continues, few players are likely to see their revenues decline. The sector overall saw sales grow to $443 billion in 1999 from $417 billion in 1998, an increase of 6.2%, according to Standard & Poor's research. In 2000, the transportation sector should achieve revenues of $464 billion.

Even railways may get some growth, as CSX Corp. and Norfolk Southern Corp. have largely worked through problems stemming from their partition of Conrail Inc.'s assets, says James M. Higgins, railroad analyst for Donaldson, Lufkin & Jenrette Inc. The recently proposed merger of Burlington Northern Santa Fe Corp. and Canadian National Railway Co., though, creates new uncertainty could cloud the outlook for the entire indu next year, Higgins says.

But the big winners will be companies can take full advantage of the opportuniti fered by the new economy. Look for U Parcel Service and the U. S. Postal Servi profit as e-commerce expands. UPS, flush cash from its record-breaking initial publi fering and armed with a solid stock takeovers, is likely to r a major acquisition in "We're a 92-year-old co ny that's reinvented i several times, and we're ing it again," says Jam Kelly, CEO of UPS. Anal expect Federal Expres have some problems, tho because of increasing costs and declining "e lope" volumes as many uments that might have been shipped over are now sent via e-mail.

FUEL CRUNCH. So-ca less-than-truckload carriers—who move s ments that don't fill an tire semi-trailer—sh benefit as more producers shift to just-in-t manufacturing. "The companies that have successful over the last couple of years become lighter on their feet and more tomer-focused," says Bill Zollars, CEO of Ye Corp., a Kansas-based LTL carrier.

Potential problems for truckers—both and full-load carriers—are increasing fuel c and the difficulty of keeping drivers. Beca of high driver turnover, trucking compa have to pay more and add new benefits, s as Internet access and cable-TV hookups truck stops, a new truck every three years, medical benefits, and even stock options would say there's going to be a crunch profit margins," says Bob Costello, an ec mist with the American Trucking Assn.

Nonetheless, revenues and profits will li be on the rise—at least for those who k how to use the Internet to generate fre traffic on roads and railways.

By David Rocks in Atla

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SERVICES

38 **EDUCATION** The advent of the Knowledge Economy and dissatisfaction with the dismal state of public education are giving private-sector outfits a once-in-a-millennium opportunity. *Revenue for 2000:* **+6.1%**

42 **TRAVEL** Buoyed by stronger economies abroad and slower capacity growth, the industry should gain some altitude this year. The biggest risks: fuel and labor costs. *Revenue for 2000:* **+7.9%**

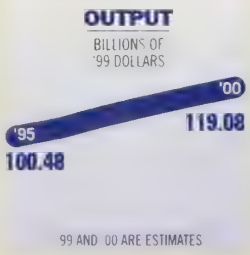
44 **REAL ESTATE** Construction has been steamrolling along for the past eight years. But after three Fed rate hikes and the promise of another to come, the industry may get flattened. *Revenue for 2000:* **+6.0%**

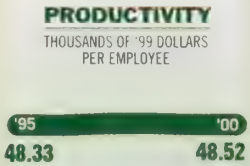
46 **UTILITIES** Deregulation will transform the industry as dramatically as it did telecom. Savvy entrepreneurs are already rewriting the rules for generating, distributing, and marketing power. *Revenue for 2000:* **+2.3%**

STANDARD & POOR'S DRI

EDUCATION

PROGNOSIS 2000





DATA: STANDARD & POOR'S DRI

POSITIVES

- *A record flow of venture capital will help nurture the continued expansion of for-profit firms in the new education industry.*
- *E-learning will explode, fueling the growth of companies' offering distance learning.*

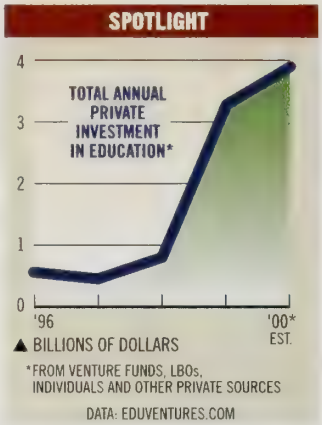
NEGATIVES

- *Education stocks will remain volatile, as investors punish companies that fail to deliver on expectations.*
- *Corporate training firms that focus on classroom-type training will shrink unless they adapt to e-learning.*

Although education is a huge part of the U.S. econ my, until recently it wasn't much of a business. Re enues of for-profit education companies account f only 10% of the $780 billion spent on educatio

And the total market capitalization of education stocks makes up less than 1% of U.S. capital markets.

But as the millennium dawns, the private sector is poised to play a much larger role. "This is the infancy of a new education industry," says Douglas Becker, president and co-CEO of Sylvan Learning Systems, which runs the nation's largest network of tutoring centers. The advent of the knowledge economy, combined with mounting dissatisfaction with the dismal state of many public schools, is creating vast openings for for-profit companies. They're doing everything from running elementary and secondary schools to conducting corporate training for companies that traditionally taught employees in-house. Simultaneously, the Internet is changing the way much education is delivered. "2000 will be the year when the revolution will become very visible," predicts Michael Moe, an analyst at Merrill Lynch & Co.



CASH GUSHER. This revolution is being fueled by an explosion in the money available to education startups. In 1999, the amount of private-venture capital pouring into education quadrupled, to $3.3 billion, figures Eduventures.com, a Boston-based market-research firm. And in 2000, it predicts the infusion will swell to at least $4 billion. With venture capitalists embracing education as a promising frontier, "hundreds of entrepreneurial education enterprises have been established in the last few years," says Eduventures.com Chairman Michael Sandler. They range all the way from Advantage Schools, which runs for-profit charter schools, to ZapMe!, an e-commerce startup that is installing free computer labs in thousands of schools to help capture potential customers.

Investors see enormous potential in education. Thanks to record enrollments in both colleges and K-12 schools, the overall education market will grow about 6% in 2000, figures Moe. But revenues of for-profit companies will rise at a 15%-to-20% clip, he predicts. "The major competitor is the government," says Scott Soffen, an education analyst at L Mason, "and over time, the for-profit sect going to consistently capture business f the government."

For all the euphoria, huge challenges ahead. Keith Gay, an analyst at Thomas W Partners, points out that in 1999, "a lot of ucation stocks were pounded." Despite continuing bull market, an index of 30 m education stocks tracked by Eduventures. was down 25% through r December. And though n analysts expect a recover 2000, "this industry remai work in progress," cauti Sylvan's Becker. "Lots of t new companies will fail."

Nowhere are the challer more evident than in the fl ling business of running profit elementary and ondary schools. This se cleared a milestone in Nov ber, when Edison Schools— largest of the for-profit op tors—went public, with an tial market capitalization more than $700 million. In addition to Edi more than a dozen other for-profit start compete in this arena. All are promising do a better job at educating youngsters t traditional public schools, while making mo in the process.

These schools are riding the biggest ref wave in American education: the movem to create publicly funded charter schools order to give parents a choice in their c dren's education. The number of such char schools exploded from fewer than 100 in 19 to nearly 1,700 last fall, and should reach 2, this year. While most charters are nonprof the for-profit operators are gaining mar share and growing rapidly. But they remain tensely controversial, and none of these co panies has yet turned a profit.

For many other sectors, though, the o look is far rosier. The $63-billion corpora training market, for instance, has always be dominated by private firms. Most training done in-house, but companies are increasin outsourcing it to firms such as Provant a SmartForce with impressive results. "Wh

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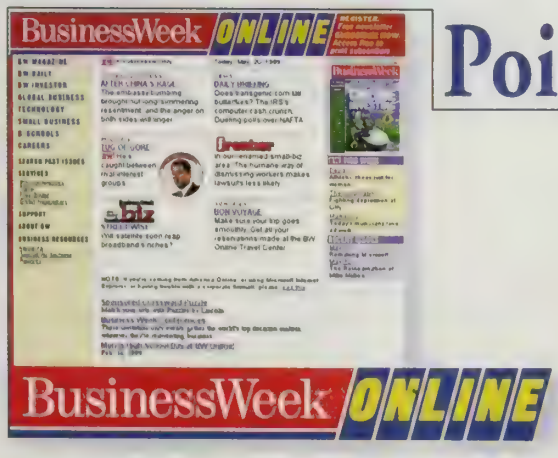

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overall corporate training is growing 5% a year, the outsourcing piece is growing 10% to 12% a year, which gives us growth of 15% to 17%," says Paul M. Verrochi, chairman and CEO of Provant.

Similarly, the growing number of over-25 college students has created a huge opportunity for private-sector providers that cater to them, like Apollo Group. It runs the University of Phoenix, which is growing 20% a year—far ahead of overall college growth—and now serves more than 60,000 students. Meanwhile, in the highly fragmented child-care market, the business of providing day care at the workplace is growing 15% a year, figures Roger H. Brown, CEO and president of Bright Horizons Family Solutions, the leader in employer-sponsored child care.

Enthusiasm is also running wild in the emerging dot.com education sector. "There will be a tremendous migration away from classroom learning to online learning," predicts Howard Block, an analyst at Banc of America Securities. Some are even calling education the next "killer app" for the Internet.

"HARDLY A LAYUP." In the online world, corporate training programs are in the vanguard (below). But higher education isn't far behind. In 2000, "dot.com will come to higher education in a way no one could have imagined even three years ago," predicts Mike Smith, Acting Deputy Education Secretary. "There are already thousands of college courses on the Internet, and by this fall, there will be tens of thousands." That's boosting growth at the Apollo Group, whose online campus is expanding at 40% a year, more than twice the pace of its classroom-based instruction. And hordes of others are rushing into this space. Kaplan Educational Centers, a unit of The Washington Post, now offers an entire online law-degree program—for just $4,200—through its Concord University School of Law.

Many companies see huge e-commerce opportunities if they can capture some of the 53 million K-12 students in the U.S., plus their parents and teachers. One leader is Family Education Network, which offers a series of education Web sites, including one that connects parents with their children's schools. Some 9,000 schools are already taking part, which helped Family Education attract 2.5 million visitors to its sites in November. Going after the same market, startup ZapMe! has now installed its labs at 1,200 schools and expects to have wired 4,200 by yearend 2000.

It's not hard to fathom the gold-rush mentality in the education market. Eduventures figures high school students control $100 billion in disposable income. But like much in the education industry, capturing this market "is hardly a layup," cautions Jonathan Carson, Family Education's chairman and CEO. "There isn't enough oxygen in the ecosystem to feed all the life" being created by the venture capital flooding into education dot.coms, he says. Still, education is the last big bastion of the economy largely controlled by the government. And given how poor a job the government has done, it's no wonder the private sector is rushing in.

By William C. Symonds in Boston

"There will be a tremendo migratio away fro classroon learning online learning

LOG ON FOR COMPANY TRAINING

Training has long been a nightmare for General Motors Corp. With 175,000 employees at more than 7,500 dealerships, GM has spent a fortune bringing employees to hotel rooms for training on new car models, for instance. "It can take three to four months to reach everyone," says Jacques Pasquier, who oversees training for GM's dealerships.

But soon, Pasquier brags, he'll have the power to reach all 175,000 employees in less than a week, using interactive distance learning (IDL) technology now being installed at every dealer. IDL will let employees view a live course beamed in by satellite and ask questions of the instructor, without leaving their dealerships. That will slash travel time and costs and improve quality, because GM can now select its best instructors to teach each course.

FADING OUT: *The corporate classroom is rapidly giving way to e-learning*

Throughout Corporate America, as at GM, old-style courses taught in classrooms are rapidly giving way to e-learning delivered over the Internet or by satellite. International Data Corp. figures the corporate e-learning market in 1998 was just $550 million. By 2002, IDC predicts, e-learning will explode to $7.1 billion.

Even the U.S. Army is jumping on the bandwagon. It recently began offering all 479,000 enlisted personnel, plus thousands of additional civilian employees, more than 1,000 different courses in information technology provided over the Internet by SmartForce.

But e-learning isn't limited to tech courses. Shoney's Restaurants has begun training new waiters, cooks, and other employees using a novel satellite-delivered computer program—developed by a unit of Provant—that teaches recruits such basics as how to clock in for work and how to take an order.

Classroom-based courses are not going away for many manufacturers. At some point, says GM's Pasquier, "you still need to touch the vehicle" to teach employees about servicing a new car. Still, GM expects eventually to deliver half its dealership training via IDL. E-learning is changing corporate training forever.

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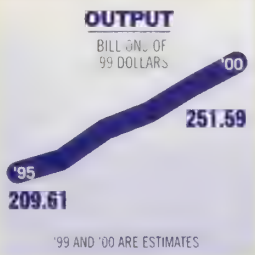

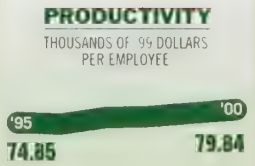

DATA: STANDARD & POOR'S DRI

POSITIVES

- *Stronger economies in Asia and Latin America should bolster airline profits.*
- *Growth in hotel room supply will slow; stabilizing occupancy levels and room rates. Airlines will also try to avoid price wars.*

NEGATIVES

- *Higher fuel prices and labor costs will put pressure on airline profit margins.*
- *Attempts by hotels to control staffing and amenities in order to keep costs down could end up degrading the customer experience.*

America's airlines, hotels, and car rental com nies all seem to share the same New Year's reso tion: Rein in capacity growth and cut back on discounting. If their willpower holds, and

global economy improves, the travel industry could gain some altitude this year.

Because of soaring fuel prices, labor unrest, rapid capacity growth, and economic woes in Asia and Latin America, U.S. airlines in 1999 couldn't match a record 1998. Earnings for the major U.S. carriers fell 15%, to about $4.3 billion, estimates analyst Candace Browning of Merrill Lynch & Co.

But slowing capacity growth and stronger economies abroad should boost earnings this year. Browning figures global airline capacity will grow about 4%, while demand climbs 5%. As a result, profits for the top U.S. airlines could climb 13%, to $4.8 billion.

One risk to the upbeat forecast is fuel costs. As OPEC held down production last year, oil prices rose last November to almost $28 a barrel. This year, many analysts figure oil will settle closer to $20. If the year's average is as high as $25, industry operating profits could fall 15%, warns analyst Samuel C. Buttrick of PaineWebber Inc.

Rising labor costs and slower productivity growth will be squeezing margins, too. "We've got an enormous focus on controlling our costs," says Southwest Airlines Co. Chief Financial Officer Gary C. Kelly, who is keeping administrative head count down and reconsidering some technology projects. UAL Corp., parent of United Airlines Inc., faces a particularly tough challenge when its employee stock-ownership plan ends, triggering a snapback in wages. All major contracts except those for flight attendants are up for negotiation this year.

Offsetting some of the cost pressures are lower distribution expenses. The industry's cut in travel-agency commissions last October could save the airlines about $800 million in 2000—

BON VOYAGE: *Airlines and hotels will be buoyed by an increase in overseas tourists*

even as it hastens a decline in the numl travel agencies, which are already down 13% since 1995. And while lower-cost bookings represent less than 5% of the t market, that business is exploding. With distribution, "you can absolutely pinpoin inventory [airline seats] you get rid of," Continental Airlines President Gregor Brenneman. That should help boost reve

Like the airlines, hotel companies shou buoyed this year slowdown in ca growth and a crease in tourists overseas. That halt a two-yea cline in occupancy els, figures Robe Mandelbaum, res director at PKF sulting Inc. in Francisco. But expect the indust return to the 6% nual increases in rates that fueled ble-digit profit gr in recent y Rates grew only last year and sh climb about 2.8% year, says Ma baum. Still, "P itability is going to remain strong across entire industry," says Thomas J. Corcoran CEO of hotel real estate investment trust Cor Lodging Trust Inc.

Travel mania will also be a boon to rental companies, which hope to build on consecutive years of record profits. In re years, most of the major rental compa have been spun off from the auto mak That has forced them to focus more on p itability, says R. Scott Anderson, chief ope ing officer of Thrifty Rent-A-Car System in Tulsa, which was part of Chrysler C until late '97. Anderson sees room to r prices "more than just a little bit" this ye

Price wars, in short, are passé, and mo ation is the watchword for travel compar Consumers can only hope that they're wr

By Wendy Zellner in Da

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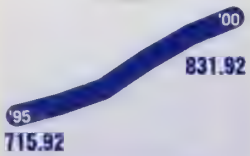
BILLIONS OF '99 DOLLARS



'99 AND '00 ARE ESTIMATES

EMPLOYMENT
MILLIONS OF WORKERS

PRODUCTIVITY
THOUSANDS OF '99 DOLLARS PER EMPLOYEE

DATA STANDARD & POOR'S DRI

POSITIVES

- *Office construction in downtown markets starts to catch up with suburban construction.*
- *Industrial development benefits from e-commerce and global trade boom.*
- *Overbuilding in budget-priced hotel sector starts to subside.*

NEGATIVES

- *Rising interest rates and sagging consumer confidence will slow the housing boom.*
- *Overbuilding hurts suburban office markets, particularly in the South.*
- *New-store construction also sags because of slowdown in retail sales.*

For much of this decade, the real estate and c struction industry has been enjoying some of best times ever. But as the new millennium ki off, the industry will hit a plateau. "This y

will be good, but it won't stack up to the boom we've seen in recent years," says Mark M. Zandi, chief economist at RFA Dismal Science, a West Chester (Pa.) consulting firm.

Blame the Fed's attempt to guide the economy to a soft landing. Following a succession of interest-rate hikes, the higher cost of financing will exert a dampening effect during 2000 on the rate-sensitive housing sector. And if the housing sector turns south, so will the construction industry, which just finished its eighth consecutive year of expansion.

After four years of record gains, the value of new single-family and multifamily residential contracts in 2000 will drop 3%, to $184.8 billion, according to The McGraw-Hill Companies' F.W. Dodge Div. At the same time, housing starts will slide 7%, to 1.58 million units. Taking its cue from housing, the total value of all U.S. construction contracts will remain virtually flat at $429 billion. That compares with an 8% jump—to $426.8 billion—in 1999.

The main culprit here is rising mortgage rates. The National Association of Home Builders estimates that the rate on 30-year fixed mortgages will climb to 7.9%, up from 7.4% in 1999. Still, measured against historical levels, mortgage rates are low, leaving room for optimism among some housing industry veterans. "As long as rates stay between 7% and 9%, we'll be O.K.," says William D. Albers, chief financial officer at Centex Homes, one of the nation's largest homebuilders. "If we go to double digits, we'll see some real slowing."

As housing loses some of its momentum, there will be fewer homeowners outfitting their new digs. That means new-store building could drop by as much as 7%. Office construction may also tumble about 3.4%, as developers add just 280 million square feet of space. But to put that in perspective, the 290 million square feet added last year marked the highest level since

Even as the market slows, however, inc executives say they are unlikely to get sa with overcapacity, as occurred in boom-anc cycles past. While signs of overbuilding appeared in some suburban office areas Atlanta and Dallas, inventories will remai prisingly low in most areas. Industry exec more disciplined and more rational" than i boom cycles of the 1980s, says John C. Gof of Crescent Real Estat uities Co.

CRIMPED: *Rising mortgage rates may slow new housing starts*

Landlords may have ferent view of the ma It's unlikely that they be able to raise office in 2000 as much as have in recent years 1999, for example, were up nearly 10% 1998. This year, real e services firm Cushma Wakefield Inc. estimates the increase will be c to the 5%-to-7% range.

In the industrial ma the picture may be brightest. Warehouses rock, thanks to the expl in e-commerce. As shortages continue, sto space with built-in roboti trieval and other high- amenities will command highest price. "This is going to be a ba year for the Internet, and industrial [real es is going to be a big beneficiary," says J Stanton, Cushman & Wakefield's managin rector of investment research.

That's what Michael K. Berry, presider Dallas-based Hillwood Properties, is ban on. Hillwood, co-owner of the 14 million-squ foot Alliance industrial complex in the Da Fort Worth area, is currently adding 500 square feet of speculative space, largely geted at capturing what he calls the e-c merce fulfillment business. "At the end of day, all of these new Internet ventures need brick-and-mortar locations," he says. that may well be the only bit of excitement real estate industry gets in 2000.

By Stephanie Anderson Forest in Da

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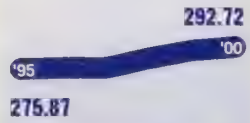

'99 AND '00 ARE ESTIMATES

EMPLOYMENT
MILLIONS OF WORKERS

PRODUCTIVITY
THOUSANDS OF '99 DOLLARS PER EMPLOYEE

DATA: STANDARD & POOR'S DRI

POSITIVES

- *Venture capital and new technologies are recharging the industry and creating new investor opportunities.*
- *Using the Internet, businesses and consumers are starting to shop for lower-cost electricity and gas.*

NEGATIVES

- *Utility stocks continue to trail the pace of the S&P 500 index, as they have since 1993.*
- *Competition under deregulation is being crimped by distribution bottlenecks and territorial disputes in the power grid.*

Don't look now, but utilities could be one of the new investment opportunities. With yesterda regulated-monopoly approach being supplanted marketplace competition, savvy entreprene

have wasted no time jumping in to develop new technologies that promise to transform the business of generating, distributing, and marketing electricity.

Already, there's a venture-capital firm devoted to funding startups working on power-related technologies. Since 1997, San Francisco-based Nth Power Technologies Inc. has plowed $65 million into more than a dozen ventures, and the company is now raising an even bigger kitty for its next round of investments. Co-founder Nancy C. Floyd reckons the utility industry is as ripe for innovation today as telecommunications was in the early 1980s, after the breakup of AT&T. "It was the flow of venture funds to little firms that helped create today's wired world," she says.

TIGHTENING UP: *Industry consolidation may lead to greater efficiency and lower profits*

NO PLUG. The U.S. is taking its own sweet time in deregulating electricity, leaving the decision to restructure or not up to the individual states. In contrast, Germany pulled the plug on all aspects of power monopolies last February. But the U.S. Federal Energy Regulatory Commission in December did announce guidelines designed to entice utilities to surrender control of their high-voltage lines. FERC hopes to improve distribution efficiencies through consolidations in the operation of the national power grid. A few independent system operators would take over the lines now managed by 100-odd utilities. Five ISOs have been formed, but power grid integration remains elusive. "Until some people are operating parts of the grid as a going business, at a profit, I don't see it taking off," says Henry J. Cialone, general manager of energy services at Battelle Memorial Institute.

Still, what's happening is awesome. National and state borders are becoming obsolete, and a global power grid could be in the offing. Rainer Bitsch, head of the distributed energy supply division at Siemens, envisions ele ty being piped across continents using a high-voltage, direct-current technology virtually eliminates transmission losses.

As part of this scenario, customers visit an Internet brokerage and bid on power from hydroelectric plants in Si Scotland, or Canada. The first Internet p trading floors already exist. Enermetrix.c Maynard, Mass., serves corporate buyers power companie swap watts www.houstonst com, run by Ho Street Exchan Portsmouth, N.

Ultimately, power lines t selves could be ming with deals morrow's elect systems will enough smart find the best for the power need automati and the compu controlling the will harness thi formation to opti distribution and coordinate production by erating plants.

Getting the whole power system to wor gether will be no mean feat, because t will be small generating plants all over map—including in individual buildings. M turbine generators suitable for stores apartment houses are being marketed by liedSignal, Capstone Turbine, Ingersoll R and SatCon Technology—and models for vidual homes should show up this yea next. Fuel cells are a new option for produ electricity at restaurants, small factories, hospitals, with home-size units coming from such startups as Avista Labs, DCH T nology, Epyx, NiSource, and Plug Power.

Plug Power Inc. went public last Octob $15 a share, and was recently trading in mid-20s. Hardly a Net IPO. But perhaps i sign of better things to come as investors v to the new potentials of energy companies

By Otis Port in New

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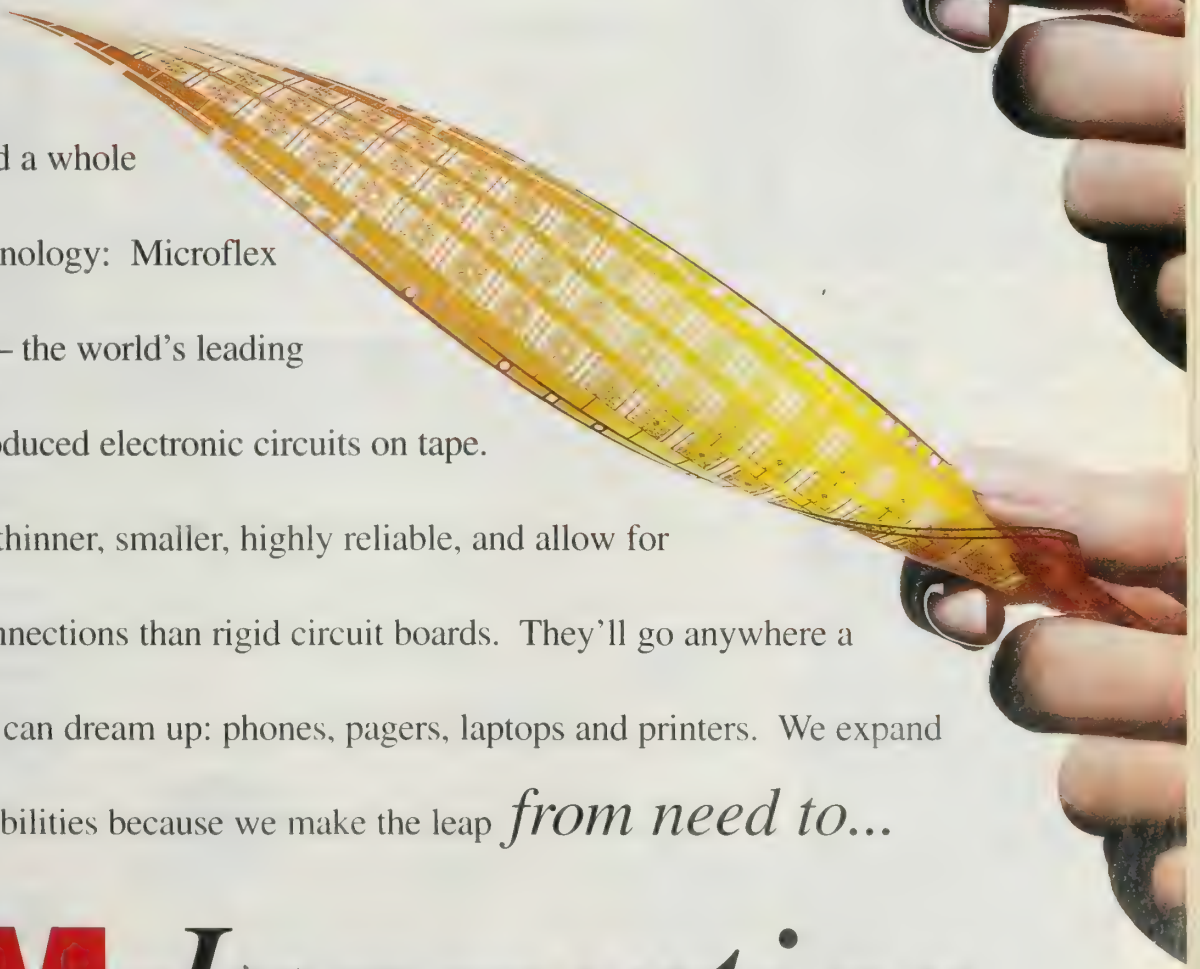

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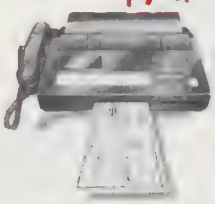

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'I CAN'T EXPLAIN THE MARKET'

BY ROBERT BARKER

As John Bogle leaves Vanguard's board: "I never expected the market would sell at 29 times earnings, any more than it would fly to the moon"

On Dec. 31, John Bogle leaves the board of Vanguard Group, a $520 billion titan he founded in 1974. This was no smooth move. After turning 70 in May, Bogle learned Vanguard aimed to enforce a retire-at-70 policy. He squawked, forcing a face-saving pact with the board and his successor as chairman, John Brennan: Bogle quits the board but stays in his bully pulpit with a new research job at Vanguard. What's in Mr. Indexing's sights now? He told me when I met him recently in his office at Vanguard's suburban Philadelphia headquarters.

Q: *Your final days were pretty rocky. Why?*
A: It worked out in a way that's satisfactory to me. Life is complicated. People are complicated. I think we all do our best in some of these struggles. We all have egos, we all have pride. The time comes when you have to put that aside and make things work.

Q: *So you and Jack Brennan have kissed and made up?*
A: I don't know if I want to get into that too much.

Q: *Do you hope fund directors will be better guardians of investors' money?*
A: Hope springs eternal, even in Bogle! I've encouraged the Securities & Exchange Commission to do a study of mutual-fund costs—where the money goes. The best place to start looking into this is money-market funds, because there's no ability to add value. You can find a money-market fund that's spending $140 million on investment management. How could the directors of that fund set that as a reasonable payment for a couple of guys sitting on a money-market desk?

Q: *What's Vanguard's biggest threat?*
A: To keep the human touch. To go from 28 [employees] to 10,000 and then 12,000 and then 15,000—it's a very, very tough job. Our management is doing an excellent job trying, but it's a little bit like King Canute: We've all got to do our best to hold back the tide.

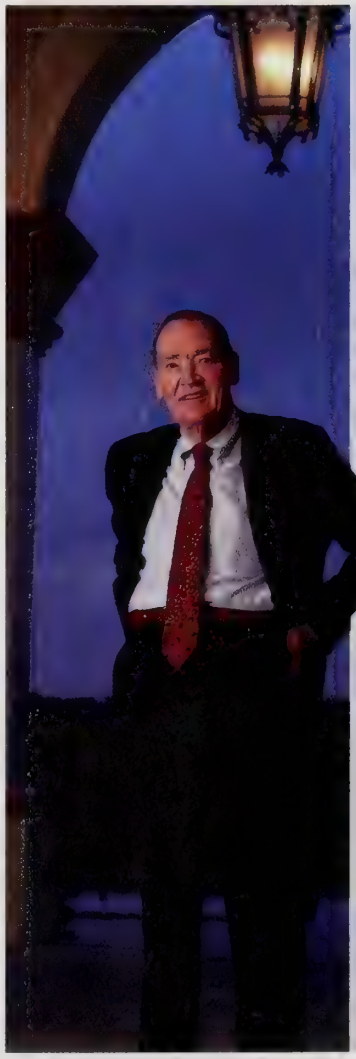
Q: *What was your greatest mistake?*
A: I've probably been a little too conservative in my expectations about the market and my preaching about the market. I never expected the market would sell at 29 times earnings, any more than it would fly to the moon.

Q: *What do you make of it now, with soaring 24% in a day?*
A: I can't explain the market. I think it's h see that it's anything but a speculative m

Q: *What about bonds?*
A: Don't buy a bond fund, other than a lo one, because there's no point in doing s bond funds will come into their own. You c a 7.5% return on pretty good quality corp So the bond market today looks reasona tractive.

Q: *Have you bought into any actively ma funds lately?*
A: No. I find it increasingly difficult to anything other than index funds in taxa counts.... Investors should know that whe go fishing for funds they should fish in th cost quartile. That's a really odds-on bet that's the best advice you can get.

For an extended version of this Q&A, barker.online at www.businessweek.com/in or AOL keyword: BW Daily.



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John Bogl

OLD JOB Senior Chair Founder, Vanguard G

NEW JOB President, B Financial Markets Research Center

PORTION OF PORTFOLI IN STOCKS 62%

FAVORITE MUTUAL FUN Vanguard Tax-Manage Balanced

NOTABLE FUND HE DOE OWN Bogle Small C Growth, managed his son. "Nothing against him . . . bu would never want i portrayed as my being disloyal" to Vanguard.

FAMILY Wife, Eve; six children; and 12 grandchildren.

BIOPSIES SINCE 1996 HEART TRANSPLANT 32 total; now, two a year.

NEXT BOOK Collected speeches, plus his 195 Princeton University s nior thesis on–what else?–mutual funds.

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The Business of CONVERGENCE

The converging marketplace is no longer a singular reference to the collapsing boundaries between the information, entertainment, and communications sectors. Today, it also speaks to the integration of online and off-line businesses, the intersection of content and commerce, and the interplay of global and local markets. Ever-broadening bandwidth and technological advances in consumer devices are fulfilling the promise of reliable, integrated delivery of voice, data, and video communication. Products and services now being developed are as much driven by consumers as they are by technological capability.

So when an unprecedented group of industry leaders gathered at THE 1999 GLOBAL CONVERGENCE SUMMIT on September 30, there was less speculation about uncharted territory and more attention paid to the territory's powerful inhabitants: consumers. Held in New York City, the event drew more than 700 senior executives who joined the panelists in exploring new business models and debating predictions. The Summit was presented by *Business Week* magazine and PricewaterhouseCoopers, sponsored by Siemens, and with support from Greenberg Traurig. The participating executives represented a cross section of the new economy – print and broadcast media, marketing, and advertising from a breadth of industries, as well as the telecommunications, information technology, and Internet/e-commerce sectors.

Defining Convergence Down

"The converged network is really not about technology," explained **Eve Aretakis**, president of the carrier networks division for Siemens Information and Communication Networks. "It's really about understanding the fundamentals in the way we expect to live, work, and entertain ourselves, and formulating an offering set that can fulfill those requirements at a price point that people are willing to pay."

Whether discussing the development of devices, software, commerce, or content for consumers and businesses, Aretakis's definition applies.

"People are less tethered to a location," offered **Bill Joy**, co-founder and chief scientist of Sun Microsystems. Taking that dynamic into account, Joy believes that "from the standpoint of convergence, we have to look at the ways and the places in which people are going to touch the network."

"The facilities that really spell the future of communications are broadband."

– C. MICHAEL ARMSTRONG, chairman and CEO, AT&T

So how do today's executives envision themselves touching the network? In an anonymous, electronic, on-site poll, executives attending the Summit were asked to vote for what will be "in five years time, the primary device for consumer access to the Internet," Thirty-six percent of the respondents voted for a wireless device. Only 23 percent believed Internet access will still be primarily delivered by the PC. And 28 percent voted for the television set. The remaining 13 percent opted for a specialized information appliance.

The Holy Grail of Convergence

"We're not going to see just faster and faster versions of that one idea, the PC, we're seeing different kinds of devices that are simpler, instead of one device that is extremely complicated and very frustrating," said Joy. To that end, he reports, Sun is focusing on developing software that will run across different devices, "including devices that we haven't built yet."

"The subject of application integration is really the holy grail in convergence," **John Patrick**, vice-president of Internet technology at IBM declared. Patrick believes there are good technologies, tools and services emerging to achieve that integration. He views

this as the major challenge and opportunity. But he keeps in mind that "the Internet is all about a very massive transfer of power from institutions to people. Whatever means people want to use to communicate, that's the means you have to use."

"From the standpoint of convergence, we have to re-look at the ways and the places in which people are going to touch the network."

– **Bill Joy**, co-founder and chief scientist, Sun Microsystems

Consequences of the New Mass Medium

The implications of this transfer of power are vast. "The Internet is turning into a mass medium," **Klaus Eierhoff**, president and CEO of Bertlesmann Multimedia Group, believes. For Eierhoff, one of the major resulting consequences of this is that "Media markets are global and local. Think about music, movies, and books. From a macroeconomic perspective the markets are converging too."

William Schrader, chairman and CEO of PSINet views the Internet as even more than a mass medium – it's essential to global commerce. "Eighty percent of the global gross domestic product is dependent upon the Internet. If you're a country, and you don't have a vibrant Internet, you don't have vibrant commerce." Schrader further cautions that governments that aim to have a vibrant Internet and resulting commerce will fail unless they have an open sky policy – competitive, wide-open access.

For now, anonymous on-site polling results point to North America still being the place to grow the business. When asked where the best growth opportunities were for their companies, 56 percent of the attendees voted for North America. Asia-Pacific received 22 percent of the vote; Europe, 16 percent; and Latin America 6 percent.

Virtual and Physical: The Future of Commerce

With the advent of Internet commerce, the demise of physical retailing has been predicted. According to **Kevin Carton**, global leader of PricewaterhouseCoopers' entertainment & media practice, these predictions are premature. "It's going to be a clicks-and-mortar and bricks-and-modem world for some time to come," he said. "Entertainment and media companies will need legs in both the virtual and physical worlds. Content providers should avoid alienating either side of the retail divide to maintain the broadest possible access to markets."

"It's going t clicks-and-m and bricks-a modem worl some time t

– **Kevin Carton** global leader, entertainment & Pricewaterhouse

Bertlesmann Multimedia Group CEO Eierhoff also posited that the "convergence of off-line and online markets is gaining momentum. We have to consider these markets as o He would be quick to find support for this from **Jonathan Bulkeley**, C of barnesandnoble.com, whose busi already thinks of the online and off- markets as one in spirit if not in de While the dot com and the brick-and-mortar retailer are wholly separ companies, Bulkeley reasons that th futures are linked. "People are going shop in different ways. E-commerce not going to kill the retail experien

Robert Tercek, senior vice-presi of digital media Columbia Tri-Star S Pictures Entertainment Group, repre sented this sentiment for his sector well, emphatically issuing a warning fellow panelists and attendees alike: believe that if your brand is not dist uted across every network, you're de

"Customers want rich content and commerce options, they want them here and now, they want the edge. Winners will 'get it' and act; they'll transcend their past and deliver on all the converging channels. Period."

– **Richard A. Rosenbaum**, managing partner–New York, Greenberg Traurig

The Costs and Benefits of Experimentation

"The business models that are being built in the Internet space are really weird.... We're going to have to tolerate experiments," said **William Schrader**, chairman and CEO of PSINet. That's just fine with **Brad Chase**, senior vice-president of the consumer and commerce group at Microsoft. "Experimentation is a great leverage on the web... you can test business models, you can test theories, you get quick information. You're connected directly to your customers and you have real-time data." Chase notes, however, that while people know that the web is changing the rules, they don't know how to treat it as a business and often make decisions they wouldn't otherwise make.

Mark Cuban, co-founder of broadcast.com and vice-president of Yahoo! Broadcast Services, is familiar with this dynamic. "So often in the Internet space we forget that if you don't sell, you can't stay in business. We all go through this process that I call 'drowning in opportunity.' How do you gauge all these opportunities? How do you decide what's real and what's not real?" Cuban keeps his focus clear: "In our case, you follow the cash."

Branding in Internet Space and Time

"Only the strong brands will endure and there just aren't that many of them," said **Peter Georgecsu**, chairm

evision: Contender of the Future

HARTENSTEIN,
lent,
TV, Inc.

"People tend to be more receptive to new technology to the degree that they control it," said **Eddy Hartenstein**, president of DIRECTV, Inc., who believes control, convenience, choice, quality, and connectivity represent key drivers behind consumer adoption of new technologies. Thus, Hartenstein is bullish on television as the platform for the future.

"Consumers will still be able to enjoy the passive nature of television, while taking advantage of interactivity." In short, they will be able to cherry-pick programs and develop a customized channel for themselves, receive a superior digitized picture, and surf the web, all with their user-friendly remote control while sitting on the sofa.

compelling argument that supports Hartenstein's claim that television is the ender of the future. "Over five years ago, we didn't even exist as an industry," said nstein. Now, he claimed, one in 11 U.S. households has satellite TV.

"If you get somebody to shop with you in multiple channels, meaning retail and online, that customer will spend more money overall than if they just shop in one channel." – JONATHAN BULKELEY, CEO, barnesandnoble.com

EO of Young & Rubicam. Atten-
onfirmed his statement in our
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eans that there is less surfing going
n you'd imagine, and more 'I used
fore, it's working great.'" As long
customer service piece is there,
yan, consumers are apt to return.
u Dobbs, former president of
and founder of both CNN and
.com, made the leap to the virtual marketplace when he became chairman and chief executive officer of space.com earlier this year. CNN.com has enjoyed critical and commercial success, but Dobbs expresses a clear preference for his current challenge. "On balance," he said, "I would much prefer to create new content serving a specific consumer need, than to try to organize an array of assets from traditional media and traditional content and move it into the virtual marketplace." Dobbs is also in agreement with DoubleClick's Kevin Ryan. "When you look at the greatest brands on the worldwide web today, they are not brands of traditional media. They are the brands that have been created within the web itself."

The moral of the story, according to Ryan, is that number one off-line brands rarely become the number one players in the Internet space. "People will just have two brand associations. They'll buy at Tower Records, but online they will go somewhere else."

"The converged network is about understanding the fundamentals in the way we expect to live, work, and entertain ourselves...."

– EVE ARETAKIS, president, carrier networks division, Siemens Information and Communication Networks

Context is King

That somewhere else is probably CDNow, the web's first online retailer of music. **Jason Olim**, co-founder and CEO, explained that the business of building an online brand requires more than selling and convenience.

"Commerce alone, while powerful, isn't a complete solution. For CDNow to be just a music shopping brand would be a problem for us, ultimately not a perfectly defensible position. This is why we as a company have been moving very aggressively into the content arena, into news, into community, into webcasting and other capabilities, basically to create a music destination brand."

Nancy Evans, co-founder and co-chair of iVillage.com: The Women's Network, heartily endorses such strategies. Evans believes that community, content, and commerce represent the three pillars of the Internet. "Content rules," she said. "But what keeps them coming is the community...and community turbo charges e-commerce."

But the content must be credible, warns Evans, "contextualizing choice." **Andrew Sharpless**, senior vice-president of interactive media for Discovery

"When you look at the greatest brands on the worldwide web today, they are not the brands of traditional media. They are the brands that have been created within the web itself...." – LOU DOBBS, chairman and CEO, space.com

One Company. One Bill. One Service.

"The facilities that really spell the future of communications are broadband," explained AT&T's chairman and CEO, **C. Michael Armstrong**, during a lunchtime conversation with Kevin Carton of PricewaterhouseCoopers and world-renown journalist, David Frost. To that end, AT&T has invested $140 billion over a 14-month time period, toward transforming itself into a global facilities-based broadband provider.

"From any source – Internet, extranet, intranet, a broadcast studio, a web site, a head end – in any form that information may take – voice, video, data – to anywhere we that we might be," said Armstrong. "AT&T would like to offer you the complete set of communications services from one company, with one bill, one service."

The goal is ambitious and the investment is staggering. But each is supported by the fact that Armstrong's vision for AT&T is clearly reflective of his vision of communications worldwide. Like William Schrader, who believes that countries without a vibrant Internet will be without vibrant commerce, Armstrong views the Internet, indeed broadband communication, as the force that supercedes national borders and the commercial limits that governments impose. "You can't plant a seed, let alone harvest it on time, or start a manufacturing business, or be in any form of distribution, if you do not have a competitive communications infrastructure."

Enterprises Worldwide, a unit of Discovery Communications, further explained this dynamic. "If you really want to maximize the opportunity, you are integrating a commerce proposition with content. That's creating a context. And the trick is to do that in a way that's not corrupt. A number of convergence applications are going to stumble because they are initially going to be seduced by the commerce opportunity in a way that creates credibility issues with their audience." According to Sharpless: "Context is king."

Content + Commerce = Free Access?

"The web is a laboratory for the convergence of real-time media and commerce," said **Bill Burnham**, a general partner at SOFTBANK Capital Partners. Burnham sees a tremendous amount of integration ahead and mused that Internet Service Providers, while generating lots of revenues now, may indeed be a passe model. "If in addition to advertising, there is this commercial subsidization, if bandwidth costs are also plummeting at the same time, does the web itself become a giant broadcast medium?" If so, Burnham believes that it is in the interest of the commercial providers of media and commerce to provide access. He also believes that "the broadcast model is coming to the web much faster than people believe, and the foundation of the broadcast model will be the integration of commerce into the content."

Conclusion

"The nature of a strategy's success is in its uniqueness," said Kevin Carton. And the nature of the Internet is giving business leaders plenty of opportunity to meet that maxim.

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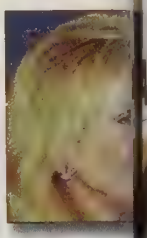
"This medium is the ultimate market research medium."

– **Nancy Evans,**

co-founder and co-chair,

iVillage.com: The Women's Network



Meridia Poll Results

Following are the results of anonymous polling of more than 700 delegates at The 1999 Global Convergence Summit. Each had access to a keypad and was a to answer each of the questions asked during the conference.

How is your company responding to convergence?

Increasing expenditure in R&D	1
Focusing on enhancing brand value	1
Increasing content options	2
Focusing on the customer	3
Other	7

Which of the following facets of the Internet has had the greatest impact on your business?

Its immediacy	4
Its ubiquity	2
Its low-cost structure	1
Its still-primitive technology	

Of the following four new technologie the one that intrigues my company the most is:

Wireless data	2
Broadband web access (DSL, cable modems)	5
Online gaming	
PVRs (TiVo, Replay TV)	
None of the above	

In-hall polling provided by Meridia, Plymouth Me ing, PA

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EXECUTIVE PROGRAM

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Talk City is, well, talking fast and growing rapidly. A provider of interactive services such as online conferences, Talk City's customers include Microsoft (its biggest), American Express, IBM, and Hewlett-Packard. So-called chat services, which include hosting live events and online meetings, have become an essential management tool for companies communicating and interacting with customers in real time.

Talk City (TCTY) is "an undiscovered and undervalued stock in the crowded Internet world," says money manager Kai-Teh Tao of Watson Investment Partners, which has been accumulating shares. The stock has been on fire since November, when it started heating up from 7 a share, to hit 23 by Dec. 28. Tao, who is primarily a value investor, sees Talk City as a "compelling" value and growth play. "It's still unusually underpriced relative to its peers, although it has been gaining market share fast," says Tao, who thinks the stock is worth 40. According to Media Metrix, visitors to Talk City's sites jumped in November to 2.9 million from 2.2 million in October. Its network partners, such as AltaVista and NBC, outsource their chat and related services to Talk City.

Another big Talk City believer is Brian Oakes, an analyst at Lehman Brothers, which took the company public in July at 12 a share. As one of the largest outsource providers of moderated chat on the Web, Talk City is a "hidden gem," Oakes says. He expects revenues to jump from $7 million in 1999 to $22 million in 2000 because of expanded services and robust growth in usage.

Talk City will increase its research services with its expected acquisition of Research Connections, a leader in Web-based market research technologies. It will then be able to provide primary research and analysis of the Net's growing consumer base. Research Connections' current clients include Fidelity Investments, Intel, Microsoft, and AT&T.

A SAFETY NET FOR SAFEGUARD

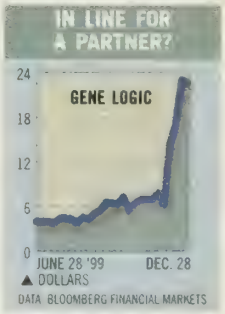
When Safeguard Scientifics (SFE) was first highlighted in this column on Feb. 8, 1999, it was a little-known "incubator" of Internet stocks. Trading then at 37 a share, Safeguard has since become a big hit with investors: Its stock zoomed as high as 178 on Dec. 21, before easing to 163 on Dec. 28. But don't think that Safeguard, a holding company of Internet-related companies, has peaked, says Stuart Rudick of Rudick Asset Management in Mill Valley, Calif. He says Safeguard is still undervalued, based on its stakes in 14 publicly traded Net companies and in 200 companies still privately held.

"Safeguard is trading at a 28% discount to its holdings in Internet stocks alone," says Rudick. Among them: Internet Capital Group, which it helped found in 1996 and took public in August, 1999, at a split-adjusted 6 a share. ICG, now trading at 177, has a market value of $4.6 billion. Safeguard, with a $5.6 billion market cap, owns 14% of ICG. Others that Safeguard helped go public: Cambridge Technology Partners and Novell. "Safeguard has a proven ability to identify and acquire stakes in promising early-stage technology companies," says Bob Hiler of Credit Suisse First Boston, who rates it a buy.

GENE LOGIC MAY BE SPLICING A DEAL

Is there some logic behind the sudden rush in Gene Logic (GLGC), whose shares have shot up from 3 7/16 in late June to 22 by Dec. 28? Part of the jump stems from investors' discovery of the promise of genomics and the few players in the field. In the case of Gene Logic, which is building a massive database of gene profiles from human and animal tissues, an added factor was speculation that the company was to sign a major deal with at least one drug company—the first partnership for its GeneExpress database. The database carries gene profiles of tissues that have been treated with a variety of compounds to study how they can be targeted by drugs.

Gene Logic is in final talks with three companies that subscribe to GeneExpress, all of which should be completed by the end of the first quarter, says Robertson Stephens analyst Michael King. Some money managers believe Pharmacia & Upjohn may partner with Gene Logic. Gene Logic CEO Michael Brennan confirms that talks are "in their final stages" with three companies, but he wouldn't name them.



The company's goal is to help hasten the discovery of drugs for specific diseases by providing drugmakers with vital gene information. It uses the powerful GeneChip technology of Affymetrix in creating its database. Since Affymetrix, which makes chips for studying DNA, and Gene Logic work closely together, merger speculation has swirled. Trading at 160 a share, Affymetrix has a market value of $4.1 billion. Brennan declined comment on the talk.

King expects Gene Logic to post revenues of $36 million in 2000 and $47.5 million in 2001, vs. 1999's $18.5 million. He sees the company becoming profitable in 2002.

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Figures of the Week

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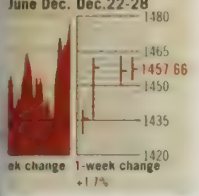
P 500

June Dec. Dec.22-28



NTARY

e stock market win- the century is: the Composite. As of 9, it had rocketed a aking 81.2%, on top 3's 42.6% rise. Not 1915 has a major index been able to such a meteoric rise. en, the Dow Jones in- s jumped 81.5%. But me on the heels of a p in 1914.

mberg Financial Markets

U.S. MARKETS	Dec. 28	Week	% change Year-to date	Last 12 months
Dow Jones Industrials	11476.7	2.5	25.0	24.4
Nasdaq Composite	3972.1	1.6	81.2	82.2
Nasdaq 100	3580.0	1.5	95.0	96.3
S&P MidCap 400	436.7	2.3	11.3	17.4
S&P SmallCap 600	193.2	2.7	8.9	13.5
S&P SuperComposite 1500	306.1	1.8	17.7	18.7
SECTORS				
S&P/BARRA Growth	885.3	1.3	27.0	27.0
S&P/BARRA Value	602.0	2.1	9.1	9.9
S&P Basic Materials	135.5	3.9	21.5	22.0
S&P Capital Goods	1104.6	3.0	26.6	27.7
S&P Energy	828.4	0.9	15.1	13.8
S&P Financials	130.4	0.6	0.2	–0.2
S&P REIT	72.6	1.1	–13.9	–12.4
S&P Transportation	591.4	4.3	–11.5	–10.0
S&P Utilities	226.6	1.8	–12.7	–12.4
GSTI Internet	703.1	–7.0	107.6	95.7
Morgan Stanley Cyclical	574.0	4.0	20.4	22.5
PSE Technology	921.1	1.8	105.0	106.3

GLOBAL MARKETS	Dec. 28	Week	% change Year to date	Last 12 months
S&P Euro Plus	1520.7	3.4	23.9	23.8
London (FT-SE 100)	6806.5	1.5	15.7	16.0
Frankfurt (DAX)	6861.5	6.9	37.2	36.0
Tokyo (NIKKEI 225)	18783.5	3.9	35.7	37.0
Hong Kong (Hang Seng)	16928.3	4.2	68.5	66.5
Toronto (TSE 300)	8452.9	2.5	30.3	30.7
Mexico City (IPC)	7007.8	0.4	77.0	77.7

FUNDAMENTALS	Dec. 27	Week ago	Year ago
S&P 500 Dividend Yield	1.15%	1.19%	1.28%
S&P 500 P/E Ratio (Trailing 12 mos.)	32.4	31.6	31.9
S&P 500 P/E Ratio (Next 12 mos.)*	25.4	24.7	24.0
First Call Earnings Revision*	–0.80%	–1.29%	–2.98%

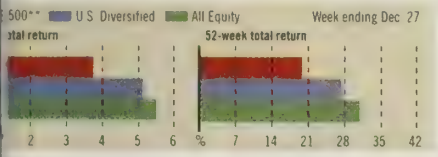
*First Call Corp.

TECHNICAL INDICATORS	Dec. 27	Week ago	Reading
S&P 500 200-day average	1342.8	1339.7	Positive
Stocks above 200-day average	27.0%	25.0%	Positive
Options: Put/call ratio	0.45	0.46	Negative
Insiders: Vickers Sell/buy ratio	0.61	0.61	Positive

BEST-PERFORMING GROUPS	Last month %		Last 12 months %
Instrumentation	38.3	Instrumentation	136.0
Aluminum	22.4	Group	109.2
Genl. Merchandise Chains	18.2	Aluminum	93.8
Insurance Brokers	17.2	Semiconductors	82.6
Computer Software	16.8	Broadcasting	79.1

WORST-PERFORMING GROUPS	Last month %		Last 12 months %
Toys	–18.5	Pollution Control	–60.7
Tobacco	–15.7	Tobacco	–56.7
Office Equip. & Supplies	–14.3	Office Equip. & Supplies	–51.4
Savings & Loans	–12.0	Manufactured Housing	–43.2
Food Chains	–11.9	Food Chains	–41.3

JTUAL FUNDS



ingstar, Inc. **Vanguard 500 Index fund

EQUITY FUND CATEGORIES

s ek total return	%	Laggards Four-week total return	%
y	17.0	Financial	–3.6
l Emerging Markets	14.7	Precious Metals	0.1
rica	12.7	Large-cap Value	0.1
Growth	12.2	Japan	0.7
rowth	11.5	Mid-cap Value	0.8

s t total return	%	Laggards 52-week total return	%
y	132.0	Real Estate	–4.6
	111.7	Financial	–2.5
l Pacific/Asia	91.2	Small-cap Value	5.2
ia ex-Japan	69.6	Large-cap Value	5.4
l Emerging Mkts.	67.9	Mid-cap Value	5.5

INTEREST RATES

KEY RATES	Dec. 28	Week ago	Year ago
MONEY MARKET FUNDS	5.39%	5.34%	4.75%
90-DAY TREASURY BILLS	5.37	5.40	4.57
1-YEAR TREASURY BILLS	5.92	5.95	4.61
10-YEAR TREASURY NOTES	6.41	6.38	4.68
30-YEAR TREASURY BONDS	6.47	6.46	5.10
30-YEAR FIXED MORTGAGE†	8.10	7.95	6.91

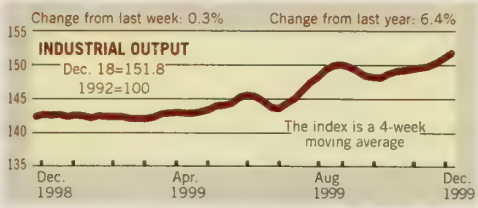
BLOOMBERG MUNI YIELD EQUIVALENTS

Taxable equivalent yields on AAA-rated, tax-exempt municipal bonds, assuming a 31% federal tax rate.

	10-yr. bond	30-yr. bond
GENERAL OBLIGATIONS	5.09%	5.86%
TAXABLE EQUIVALENT	7.38	8.49
INSURED REVENUE BONDS	5.28	6.14
TAXABLE EQUIVALENT	7.65	8.90

†BanxQuote, Inc.

BW PRODUCTION INDEX



Information on each of the index components is at www.businessweek.com. BW production index Copyright 1999 by The McGraw-Hill Companies

The production index inched up in the week ended Dec. 18. The unaveraged index, however, dipped 0.2%, to 151.6, from 151.9 in the previous week. After seasonal adjustment, production of raw steel rose 4.7%, with capacity utilization at 88.5%. Rail-freight traffic was up, and for the fourth consecutive year intermodal traffic on U. S. railroads has set a record. Output of trucks, oil, coal, and lumber also increased. On the downside, auto production and electric-power output were negative.

E WEEK AHEAD

SURVEY *Monday, Jan. 3, 10 a.m.EST* ▶ lational Association of Purchasing gement's business index in December remained at November's high reading .2%. That's the median forecast of omists surveyed by Standard & Poor's a division of The McGraw-Hill Compa- An NAPM index above 50% indicates he factory sector is expanding.

TRUCTION SPENDING *Tuesday, Jan. 4, m.EST* ▶ Building outlays probably l up 0.3% in November, the same gain d in October. Warm weather helped to activity at construction sites.

FACTORY INVENTORIES *Wednesday, Jan. 5, 10 a.m.EST* ▶ Factory inventories likely grew by about 0.5% in November, slightly faster than the 0.3% increase in October.

NEW SINGLE-FAMILY HOME SALES *Thursday, Jan. 6, 10 a.m.EST* ▶ New homes likely sold at an annual rate of 920,000 in November, down from the record 986,00 pace in October, according to the S&P MMS survey.

EMPLOYMENT *Friday, Jan. 7, 8:30 a.m.EST* ▶ The S&P MMS median forecast projects that nonfarm payrolls increased by a large 225,000 in December, on top of 234,000 new jobs created in November. December's unemployment rate is expected to remain at 4.1%, while nonfarm hourly earnings probably rose 0.3% after a very small 0.1% gain in November.

INSTALLMENT CREDIT *Friday, Jan. 7, 3 p.m.EST* ▶ Consumers probably borrowed $6.2 billion more in debt than they repaid in November. In October, credit rose by $4.2 billion.

BusinessWeek ONLINE

For more investment data and the components of the production index, visit www.businessweek.com.

THE SPREAD OF PROSPERITY

Is this the year the global economy finally takes off? First the good news. After a decade of struggling with growth rates averaging less than 2%, Western Europe may finally be on the way to a solid expansion. And most of the crisis-hit countries of East Asia are anticipated to show strong growth in 2000. The fastest growth is expected in China, South Korea, and Taiwan, where the index of leading economic indicators rose in November to a 22-month high.

Certainly, the global equity markets are signaling optimism. The U.S. stock market may have turned in a stellar performance in 1999, but the gains in bourses in such countries as Mexico, France, Germany, Japan, and Hong Kong were even more impressive. What's more, there is no sign of a retreat from globalization and the benefits it brings. Despite the recent fiasco in Seattle, the growth of trade is proceeding unimpeded. As a result, most forecasters have substantially marked up their projections for 2000. Merrill Lynch & Co. expects 3.3% global growth, up from 1.9% in 1998 and 2.7% in 1999. Economists at Morgan Stanley Dean Witter see 4% global growth in 2000.

But it's not clear yet that the global economy is out of the woods. Disturbing signs of weakness remain in the Japa economy, though the government has poured money restarting growth. Sales at Japan's largest retail stores f November, while industrial output has declined in two o the last three months. Moreover, the sharp rise in oil pric recent months, to over $25 per barrel, may put a damp global growth, especially if the price keeps climbing.

And central banks around the globe may still be relu to follow the Federal Reserve's example of encoura growth. Inflation is low in Europe—it was barely over 1 1999—but the European Central Bank is still expected t crease rates next year on the heels of a half-point rise in vember. And the Japan's central bank, still worried abou flation, is keeping too tight a lid on the money supply, w is rising only at a 3% to 4% rate. If these policies cont there is the risk that the global economy may be weaker necessary in 2000.

In sum, it's easy to find things to worry about for 2000 our hunch is that the prosperity experienced in Am these last five years will spread to many other countri the 21st century dawns.

THE BEST MANAGERS: WHAT IT TAKES

In the Internet Age, it should not be a surprise that BUSINESS WEEK's list of the top 25 managers leans toward the leaders of technology-related businesses (page 60). From Steve Case of America Online to Bernie Ebbers of MCI WorldCom to Chris Gent of Vodafone AirTouch, about half of BUSINESS WEEK's top managers come from information technology and telecom companies around the globe. These are all businesses that have prospered in cutthroat industries where it is far too easy to fall permanently behind. Moreover, in an era when companies with mountains of red ink are rewarded with enormous stock valuations, most of these managers run companies that have been demonstrably successful in terms of profits in recent years.

But the executives in the Top 25 share another trait: adaptability. For example, Kenneth L. Lay, CEO of Enron Corp., was able to prod the utility to quickly move to take advantage of the opportunities offered by energy deregulation. CEO Yun Jong Yong of Samsung Electronics Co. restructured the Korean giant to adjust to the new realities of competition in the aftermath of Asia's financial crisis. And Case was able to implement a series of strategic shifts to keep America Online growing—and profitable—in a rapidly changing online market while many of its rivals fell by the wayside.

Indeed, adaptability may turn out to be one of the key traits needed in the next couple of years, especially at fast-growing technology companies. The skills needed to ride the boom may not be the same ones that are valuable wh business or industry starts to mature. This is a critical le for the Internet startups. Right now, the most succe executives at dot.com companies are those who can l market share as quickly as possible in a highly unpredic and fast-moving environment. As the Christmas reta season shows, this may mean cutting prices and sellin many products as possible at a loss. Managers who ca well in such a situation may excel in the early go-go yea e-businesses. But when it is time for the transition to p itability, a very different set of strengths may be needed— only some managers may be able to adapt.

Similarly, some executives today have prospered by t ability to wheel and deal in consolidating industries. S skills work well in the greatest merger and acquisition b in history. But when the M&A frenzy slows, as it inevit will, a different set of skills will prove essential.

Going into the 21st century, corporate boards and inves must judge managers on more than simply how well t companies or their stocks are performing today. In partic equity prices, which in ordinary times may be an excellen dicator for the performance of managers, may today re the fervor of the market rather than a clear-sighted praisal of corporate values. The one truth is that the econ will continue to change—which makes the ability to adap changing environments one of the most valuable man ment skills of all.

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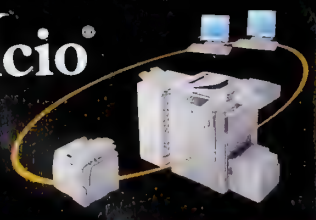

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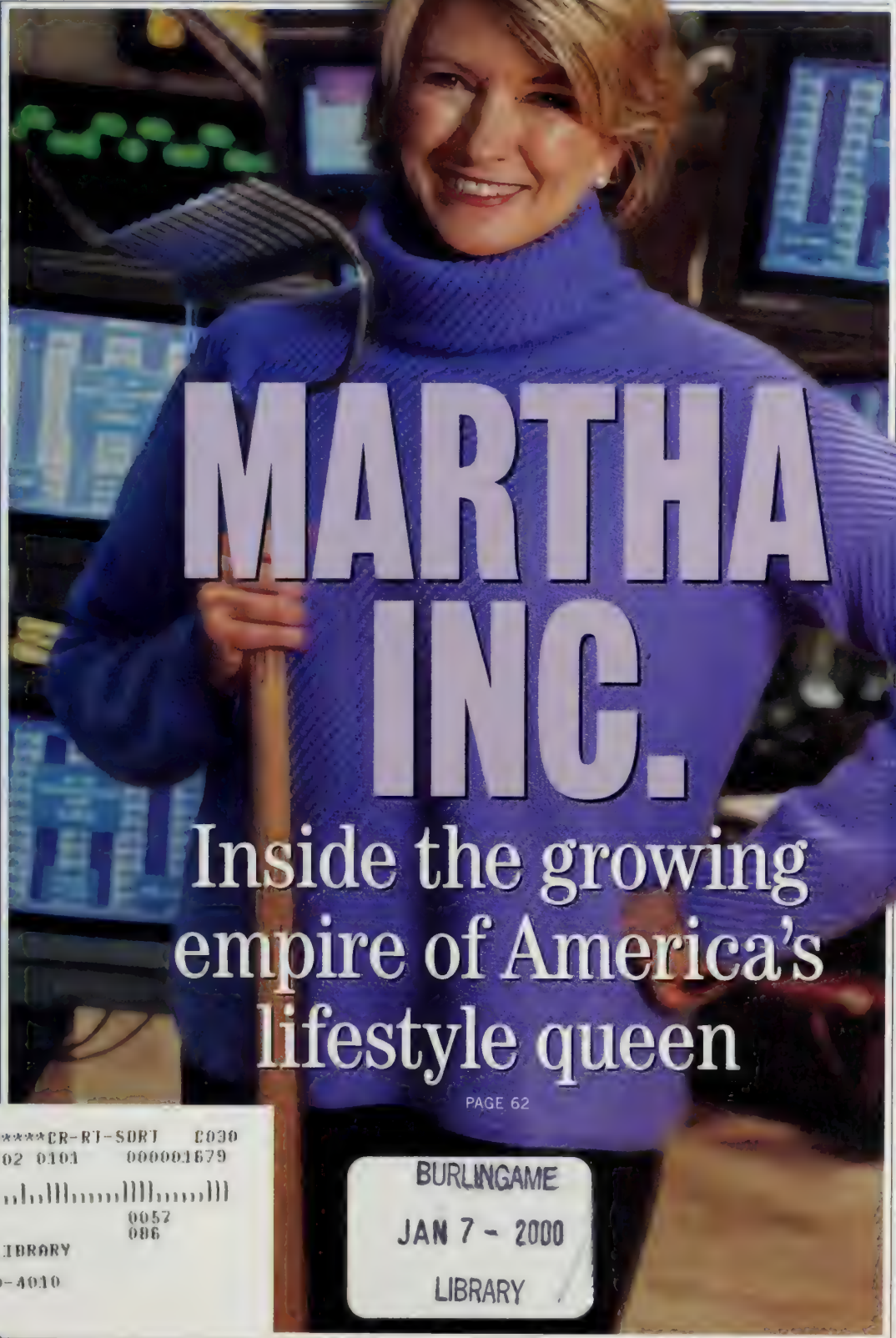

MARTHA INC.

Inside the growing empire of America's lifestyle queen

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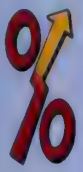

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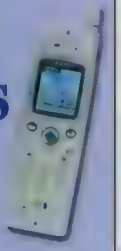

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r? sciences.

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BusinessWeek

JANUARY 17, 2000

Cover Story

62 MARTHA INC.
Ever since her company went public on Oct. 19, superstar homemaker Martha Stewart has been a billionaire on paper. Her how-to information can show up as magazine articles, Web chat topics, or products on Kmart shelves—and preferably all three. The business empire is mushrooming: 1999 sales should top $225 million. Now, the challenge is to make sure Martha Stewart Living Omnimedia can outlast Martha Stewart the person

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Up Front

EDITED BY ROBERT McNATT

TALK SHOW "Life will be better. We've lived all our lives under old guys." —*Russian citizen Nadiya Gorshkov, to* The New York Times, *speaking of Vladimir Putin*

FASHION FRONT

MOUSEPAD NOT INCLUDED

A NEW LINE OF FASHIONABLE Dells will be rolling out this spring. But don't expect keyboards and monitors. Susan Dell, wife of Dell Computer CEO Michael Dell, is preparing her ready-to-wear clothing line for April. She'll sell it in the recently opened Susan Dell store in an upscale mall in Austin, Tex. And that's just for starters. "We have plans for expansion," she says, "but nothing I want to talk about yet."

DESIGNING WOMAN: *Dell*

Pieces in the spring line—evening, day, and outer wear—will start at $500. They'll be "strong, sexy, and feminine," says Dell. "It's Lee Miller meets Martha Graham." That means feminine fabrics for more masculine cuts, and vice-versa. Colors: black and white, reds, cream, browns, soft blues, pinks.

Dell, 35, has a bachelor's degree in fashion merchandising and design from Arizona State and previously worked in real estate. She has been designing for friends for the 10 years she has been married. Now, with the help of a design team, she is ready to build her business. And as for playing on the success of that other Dell? Says Susan: "He's computers, I'm dresses. The two don't mix at all. This is my business." Hubby, however, is on the board. *Wendy Zellner*

HONCHOS

ONE HEADS-UP HEADHUNTER

THE EXECUTIVE headhunter who has made many a corporate king is now something of a king himself. Gerard Roche, 68, chairman of Heidrick & Struggles International, has been named the headhunter of the century in a poll of 2,000 of his peers conducted by *Executive Search Review*.

Over Roche's 35-year career, he has lined up more than 200 CEOs and presidents for his clients, including the CEOs now at Aetna, AlliedSignal, AT&T, EDS, IBM, Eastman Kodak, and Westinghouse. He recently lured former Hewlett-Packard CEO Lew Platt to head California winery Kendall-Jackson.

Roche, who once considered becoming a priest, is the quintessential networker. He has befriended everyone from the late CBS patriarch William Paley, for whom he found four presidents, to GE Chairman Jack Welch, a golf partner. Roche's first top-level assignment in the late 1960s was to find a president for financier Saul Steinberg's Leasco group. More than 10 years later, he found a new president for Steinberg's Reliance Group, putting in corporate turnaround artist Robert Miller in November. He's hard-pressed though, to name his favorite search. "It's like asking a parent to pick his favorite child," he says. *John Byrne*

REACH: *Roche's network includes (clockwise) GE's Jack Welch, IBM's Lou Gerstner, and AT&T's Mike Armstrong*

SILICON SAGAS

BE VERY, VERY NICE TO LARRY

WHEN LARRY AUGUSTIN became an instant billionaire on Dec. 9, he was so stunned that he stared out the window of an office building in San Francisco at the Bay Bridge and kept repeating, "Look at the bridge, look at the bridge," to calm his nerves. Augustin, 37, is CEO of VA Linux Systems of Sunnyvale, Calif., an operating systems company that turned out the best initial public offering ever when its stock went up an incredible 698% to close at $239 that day. Augustin's stake was then worth about $2 billion.

AUGUSTIN: *A $2 billion man*

But for six months he can't sell any of that stock. So for now, he's something of a poor little rich boy. Augustin lives in a 1,200-square-foot tract house in Mountain View and drives a nine-year-old Volvo. So what will he buy? "No jet fighters or yachts for me," Augustin pledges. But he says he will upgrade his digs. He likes the big houses he saw as a child in Ohio.

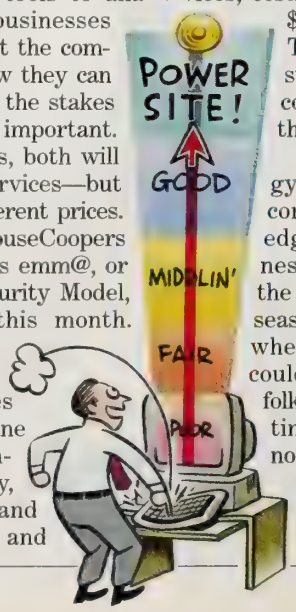
Of course, he could buy a sizable chunk of Ohio by midyear. Still, he says the "instant billionaire" label chafes. He labored in obscurity for years before his company's success. Now, he's focused on fulfilling investors' expectations. And what about that IPO? "That's yesterday's news," he scoffs. But what big news it was. *Steve Hamm*

PRODUCT PEEK

DO YOU RANK AS A 'FULL E-BUSINESS'?

A MAJOR CONSULTANT AND A research outfit will each soon be rolling out proprietary benchmarking tools to analyze how e-businesses stack up against the competition and how they can do better. With the stakes so high, that's important. To snare clients, both will offer similar services—but at radically different prices.

PricewaterhouseCoopers is rolling out its emm@, or EBusiness Maturity Model, in the U.S. this month. Tested in Europe, the service analyzes Web sites in nine categories, including strategy, performance, and technology, and rates their Web presence anything from minimal "full e-business," efficient a mature. Cost: up to $1 million. But starting in February, Forrester Research eBusiness Voyage counts with its own advisory services, costing just $10,000 $40,000. The cat The client might still have to hire consultant to act the findings.



Whichever strategy prevails, b companies ackno edge that the bu ness is there. Af the disastrous holid season of Toys 'R' when the retai couldn't deliver to folks ordered online time for Christm no price may be high to ensu success on t Web. *Joan Ole*

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Up Front

CAMPAIGN 2000

GIVE ME REFORM, OR GIVE ME JAIL

WILLIAM KREML, A POLITICAL science professor at the University of South Carolina, and a virtual unknown in the 2000 Presidential campaign, has no delusions of capturing the White House. But he could find himself in the "big house"—for violating Federal Election Commission campaign donation reporting laws.

KREML: *Campaign finance reformer?*

The professor, a Democrat, is deliberately refusing to disclose his own donors to the FEC, to force the agency to "come clean" on what he calls spending violations by major candidates. On Dec. 2, the FEC took the bait and fined Kreml—who has raised a token $7,500—$200. He hasn't paid the fine.

Now he wants his day in court, hoping to prove that he's not the only candidate violating campaign finance laws.

Kreml says that the FEC did nothing when the 1996 Clinton-Gore campaign overspent its FEC-prescribed limit by $7 million, and Bob Dole overspent by $18 million. But after reviewing the matter, the FEC sidestepped the issue when the candidates argued that most of the money was spent not on ads for the candidates, but for issues. Clinton was eventually asked to repay $150,000, and Dole $3 million for other violations.

Why is Kreml willing to risk jail? "Civil disobedience is more powerful than picketing, passing out pamphlets, or writing op-ed pieces," the professor says.

Kreml figures that his electoral lawbreaking may yet add pressure to strengthen campaign finance laws—even if no one at all votes for him for President.

W. Thomas Smith Jr.

DRAWN & QUARTERED

AG NOTES

A PICTURE'S WORTH A THOUSAND LEMONS

O.K., YOU GRAPEFRUITS AND oranges out there: Say cheese! Citrus growers nationwide have begun taking digital photos of crops for buyers to view. Sampling the virtual fruits won't replace tasting and feeling the real thing at packinghouses. But wholesalers and growers love the digital pics, which they say can be quickly e-mailed, expedite sales, and help resolve disputes over damaged fruit.

Jack Cain, president of Voita Citrus in Indianapolis, says his buyers in Californi Florida, and Texas all hav digital cameras. "We call our daily beauty contest Cain says. Adds Billy Helle general manager of Helle Bros. Packing Corp. in Wi ter Garden, Fla.: "We may h recommending somethin and the buyer may be relu tant, or vice-versa. So w shoot and e-mail it to them

The Agriculture Dept. ha also started taking pics for i spections. It will use them help resolve disputes betwee growers and wholesaler when, say, fruit approved b the agency ends up at its de tination damaged.

Dennis Blan

THE BIG PICTURE

THE TOP TECHNOLOGICAL BLUNDERS OF THE (JUST PAST) CENTURY

Remember Murphy's Law ("Whatever can go wrong will go wrong")? The 20th century gave birth to that chestnut, along with such classic screwups as the Titanic, the Hindenburg, and the Union Carbide chemical disaster at Bhopal. Following, a small sampling of other catastrophes:

1940 A design flaw causes The Tacoma (Wash.) Narrows Bridge to collapse in high winds.

1952 The DeHavilland Comet (pictured above), a commercial jet aircraft, debuts. Seven of 21 copies promptly crash, owing to faulty design.

1959 The Malpasset Dam on the French Riviera, built too close to unstable ground, bursts, killing hundreds.

1958-62 "The Great Leap Forward," China's botched technological revolution, causes widespread famine; 30 million die.

1970s The glass-clad John Hancock Tower in Boston sheds its 500-lb. windows, a major construction embarrassment.

1986 The space shuttle Challenger explodes just after liftoff.

1986 In the Soviet Union, the Chernobyl nuclear power plant suffers a partial meltdown.

1994 Juan Pablo Davila, trading commodities via computer in Chile, accidentally types "buy" instead of "sell." To rectify his mistake, he starts a frenzy of buying and selling, losing .5% of his country's GNPs. His name becomes a verb, "*davilar*," meaning "to screw up royally."

DATA: ANNALS OF IMPROBABLE RESEARCH

FOOTNOTES Proportion of U.S. cities surveyed that lowered property tax rates in fiscal 1999: **16.8%**; that lowered sales tax rate; **1.8%**

DATA: NATIONAL LEAGUE OF CITI

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TIPS FOR XTREME RETAILERS: FIX THE BASICS FIRST

Here are some ideas that would constitute "Xtreme Retailing" (Cover Story, Dec. 20) for the brick-and-mortar guys:

1. Don't make people wait to check out.

2. Stay in stock on items you're supposed to have.

3. Train salespeople to know the merchandise and be helpful and friendly.

4. If you have shopping carts, make sure they have four round wheels.

Brad Leland
Newton, Mass.

May I suggest that if brick-and-mortar stores returned to basics, offering such features as adequate customer service and sales personnel, they would be better able to compete with the Internet. One has only to go to a megastore such as Circuit City Stores or The Good Guys Inc. and try to buy a piece of equipment in a reasonable time to become an advocate of e-commerce. Until the large stores start staffing adequate personnel, trained in their own computer systems as well as their products, they will steadily lose business to the Internet.

Glen Kaner
Las Vegas

WHAT KIDS WANT MORE THAN A NEW CAR

Supporting women who choose start and grow a business is terr But "Mommy, do you love your com ny more than me?" (Working Life, D 20) suggests that their young child wholeheartedly agree to the neglect t often comes with a consuming care To suggest that a 4-year-old is clamor for a bigger house and private-sch tuition is irresponsible.

As a nation, our children should co first, but all too often they don't. soothe our collective conscience telling ourselves that the children the ones who want a summer hou and a new car every year. But ki ability to be loved and love others, th moral development and intellect growth have nothing to do w living in a big home in the "right" p of town. It has to do with having p ents who are involved in real and i mate ways with their everyday life a learning.

Until we stop lying to oursel about what our children really wa we will destroy the spiritual and mo fiber of the next generation of bu nesspeople. No amount of success c make up for an abandoned, unhap soul.

Catherine Korpolin
Richardson, T

Business Week

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‹GING TO DIFFER 'H A BOOK'S REVIEW

appreciated Paul Raeburn's review ny book *Intelligence Reframed* ıe brain's many mansions," Books, . 20). But I am mystified by his lication that I do not address criti- ıs of the theory of multiple intelli- ces. In addition to passages ughout the book, I devote Chapter holly to a discussion of seven ths and Realities about Multiple lligences" and Chapter 7 wholly to scussion of 18 "Issues and Answers arding Multiple Intelligences." In- l, I attempted to address every onable criticism of the theory I e encountered; what I did not do to pen a section called "Response ly Critics."

Howard Gardner
Hobbs Professor of Cognition and Education
Harvard University
Cambridge, Mass.

AIRBUS DEAL EARNED FITS WITHOUT SUBSIDIES

should be made very clear: Air- Industrie's recent A318 deal with ıs World Airlines Inc. was profitable ong odds on a short-haul jet," The poration, Dec. 13). We are financial- leased with the deal. While the issue rice is becoming the excuse *du jour* our competitor, airlines are choosing A318 for superior values. Contrary he implications that price leads, it ks well behind an attractive combi- on of efficiency, versatility, passenger eal, and residual value.

econdly, there are no "low-interest ernment loans" used in the devel- ıent of the A318. As with the A319 A321, development costs were cov- l by funds generated internally by ous Industrie.

David C. Venz
Vice-President, Communications
Airbus Industrie of North America Inc.
Herndon, Va.

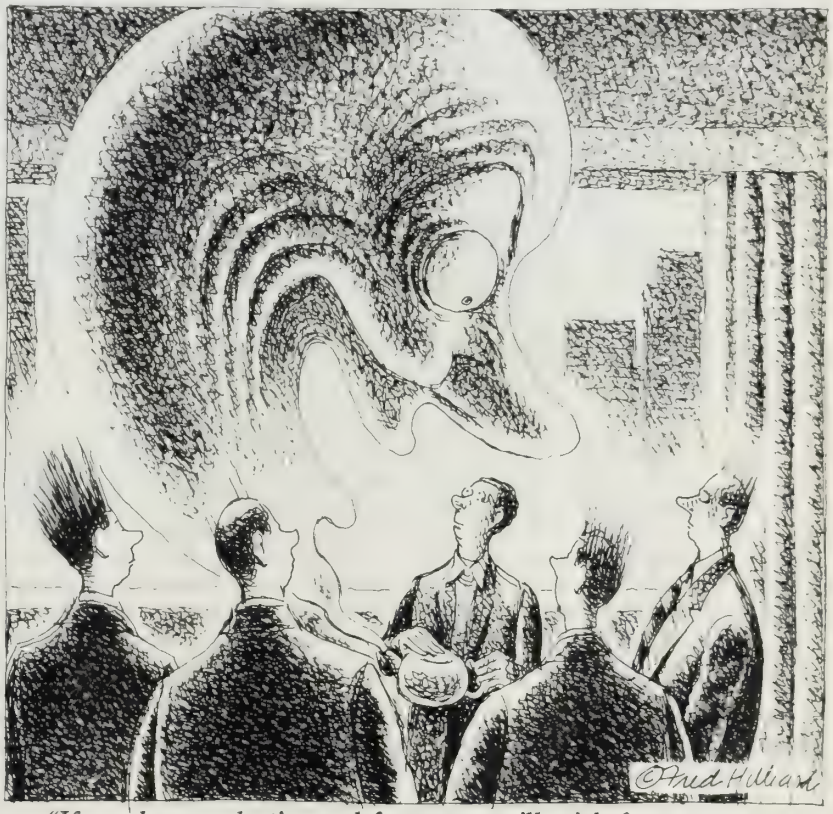
HO FARMERS AREN'T THROUGH 'H THE WTO

egarding "Whose world is it, any- ?" (News: Analysis & Commentary, . 20), America's family ranchers and ners, along with their allies in or- ized labor, brought a simple mes- e to the table: We support trade but the World Trade Organization.

he WTO has had five years to de- r, and it has failed. U.S. trade cits are up, AG-commodity prices in the toilet, and U.S. median wages are 4% lower than they were in 1973. If the WTO's version of free trade works, at least one of these ought to have improved.

But this example should not distract the thoughtful from the deeper message our people also carried with them. Here in America's Third-World annex, Idaho's colonial economy continues to pay for what those in the entrepots love to call "free trade." While Tory politicians here suck up to ConAgra, IBP, Cargill, Archer Daniels Midland, etc., a grassroots AG revolution is brewing. Today, the Tories carp at the colonials the same way they did in 1776. And the militant patriots are a minority now as then. But the issue at stake remains the same: the right of the people to oversee and control their own economic destiny.

Democratic oversight of economic and social activities always seems messy and dangerous to those who benefit from an elitist status quo. Our members went to Seattle and stood on the capitol steps



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Mark Datema Lipscomb
Idaho Rural Council
Boise, Idaho

SEATTLE: A PUSH FOR OLD IDEALS, OR NEW IGNORANCE?

Robert Kuttner's "The Seattle protesters got it right" (Economic Viewpoint, Dec. 20) was a reminder of the ideals this nation was founded on. However, the sad fact is that the U. S. engineered the WTO attitude ourselves by a wanton disregard for our own politics.

Jimmy Carter and George Bush are two wonderful cases in point: We broadcast to politicians that we don't really care about injustice, suppression of human rights, or even genocide as long as we have a good economy. If it's lousy, you'll get removed by a voting minority; if it's great, you can stay in office.

We are all too clear in the messages we send to the men who would be kings. I hope Mr. Kuttner continues his message to vote the measured, better part of our natures.

David Murphy
Fort Worth, Tex.

It is troublesome when American intellectuals presume to know what is best for areas of the world far removed from our shores. Robert Kuttner's comment that "the struggle of a decent, democratic, and humane society... is now being undermined by trade" would certainly come as a shock to millions of Chinese who are beginning to enjoy a lifestyle we have taken for granted for generations. It would also come as a surprise to the nearly 1 million new Mexicans being employed yearly, thanks in part to the North American Free Trade Agreement. On the other hand, one of the best remaining examples of a country blissfully immune to global capital flows is Cuba.

History suggests that Robert Kuttner has it backwards: Creating wealth is almost always a precursor to a more open, liberal society, while restricting economic freedom almost always goes hand in hand with political repression.

Bruce C. Lueck
Minneapolis

THE LINK BETWEEN DEMOCRACY AND WAGES

"Labor standards: Try a little democracy" (News: Analysis & Commentary, Dec. 13) went a long way toward recognizing the real lesson of Seattle, and BUSINESS WEEK is to be congratulated for giving it ink. People everywhere understand that democracy and political power provide the leverage for social and economic justice. It is curious why it took someone at Harvard a century to prove this.

Alan MacDonald
Sandford, Me.

LET'S NOT PANIC OVER GENETICALLY ALTERED FOODS

"The 'Frankenfood' monster stalks Capitol Hill" (Washington Outlook, Dec. 13) should give the Food & Drug Administration and Congress a little *déja vu*. This situation should remind us of the silicon-implant fiasco, in which sham science and well-meaning consumer advocates influenced the FDA and legislators, resulting in a barrage of lawsuits and the bankruptcy of Dow Corning.

While it's reasonable to be concerned about the risks of genetically manipulated food, the current frenzy, fueled by Greenpeace International and other environmental groups, is another ploy that plays on perception, not facts.

New science and technology are always fraught with new risks and concerns. Predictably, the new risks are often feared out of ignorance. This is why we have an FDA. The FDA has analyzed the risks of genetically modified food and has deemed these foods safe. Surprisingly, environmentalists don't mention much about how the use of GM seeds reduces the use of pesticides, which have known, serious health risks.

One hopes that farmers, food distributors, grocery stores, and consumers alike will resist the ranting of the anti-technology zealots and allow facts to dictate their choices.

Brian J. Cox
Aliso Viejo, Calif.

A DYNAMO CALLED CALIFORNIA

Regarding "Vying for the fast track" (Economic Trends, Dec. 20): If Colorado, Utah, and Massachusetts each are graded "A" in business vitality and development capacity, where is California? It has to be totally off the charts.

When you combine the report in "Hope for kids of immigrants" ("Economic Trends, Dec. 20), which concludes that immigrants and their children achieve more than native-born Americans, California has to be not only the No. 1 location in this country for economic development today but also for the next generation. We did it for the Okies in the '30s. We did it for the vets in the late '40s and '50s. And we are ing it for the world in the '90s.

Lee Dr
Los Ang

SOFTWARE WILL IMPROVE WHEN CONSUMERS GET MAD

Kudos—an excellent job with "S ware Hell" (Special Report, Dec. 6 will take a change in the behavio business consumers of software to b about much-needed change in its qua and design. But behavioral changes driven by intellectual changes, and pi like yours provide the education nee to create a market of more discrimi ing, longer-term, value-oriented softw consumers.

Good to see you raising the excess complexity issues, too. Poor quality excess complexity are two of the causes of the high-tech workforce sh age—we waste too much precious h tech labor fixing, patching, connect and trouble-shooting problems that c be prevented in the first place. O when consumers put their feet down say "enough of this junk" will the havior of software manufacturers char

Leon A. Kappelr
Associate Professor, Busin
Computer Information Syste
University of North Te
Denton, T

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Building the First Transcontinental Railroad
By David Haward Bain
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THE GREAT LEAP WEST OF THE IRON HORSE

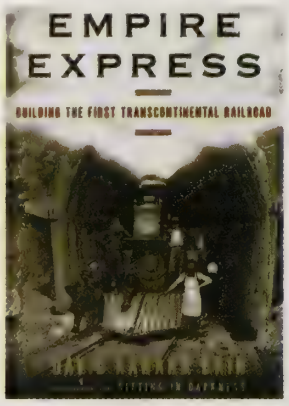
Recent headlines have proclaimed a mind-boggling merger agreement between Burlington Northern Santa Fe Corp. and Canadian National Railway Co.—each in its own right the product of many previous mergers. If the deal, announced on Dec. 20, is consummated, it would create the first truly transcontinental road, dwarfing the storied combines of the past.

Such consolidation stands in dramatic contrast to the early days of railroading. In 1865, after the assassination of President Abraham Lincoln, his body was taken by train from Washington, D. C., to Springfield, Ill. The train had to wend a circuitous route over no fewer than 14 different lines. Countless thousands stood along the tracks to pay their respects.

The mournful progress of the Lincoln train is only one of the scores of vignettes in *Empire Express*, David Haward Bain's compelling account of the building of the first transcontinental railroad. Bain, who teaches at Middlebury College, has woven a masterful tapestry. The most familiar icon of this immense project may be the classic photograph of the driving of the final spike at Promontory Summit, Utah, in 1869—with a locomotive of the Central Pacific arriving from the west and almost touching cowcatchers with a Union Pacific train coming from the east. But the story of what led up to that moment—a "media event" in today's terms—was full of heroes and villains and many who were a little bit of both. Together, they spun a web of intrigue and influence to awe a Machiavelli.

The first hero in Bain's book is one Asa Whitney, a world-traveling merchant who became the first crusader for a railroad to span North America. He began work in 1844—significantly, five years before the California gold rush—championing his cause before Congress. He wrote and spoke tirelessly on its behalf. The fact that friendly congressmen arranged for him to have an office in the Capitol, along with the right to address the House of Representatives, would raise eyebrows today. But there is no hint of scandal in Whitney's career as prophet and crusader.

Such cannot be said of others, as would unfold in congressional hearings centered on Crédit Mobilier, a financing device for the Union Pacific. The revelations—and censures—were dramatic. During years of political maneuvering, many legislators were showered with shares of stock, cash, and rights to purchase land along the projected routes. And there were serious questions about how much of the money intended for the construction project was raked off by promoters and contractors.



There was often prolonged wrangling over what route the lines should follow. With government payments to the rail builders determined on a per-mile basis, for example, valuable time was wasted by the Union Pacific in infighting over whether to build straight west from Omaha or along a much longer "oxbow" route that would bring in more cash.

Quality was also an issue, with both railroads—but particularly the UP—doing anything to get their lines laid as they raced toward the meeting place. (In fact, the final-spike ceremony had to be delayed by two days.) Once the headlines faded, shoddy bridges, culverts, and embankments had to be rapidly bolstered.

Engineer Theodore D. Judah was a hero on the western end. He was memorialized with a Judah Street in San Francisco, but such Centra leaders as Leland Stanford, Crocker, Mark Hopkins, and Huntington are better known Their eventual success owes Judah's selection of the Donner the route of choice over Cali Sierra mountains, allowing a passage to the easier constructio of the Nevada deserts to the ea

On the Union Pacific side, her belongs to Grenville M. Dodge— his later implication in the Cré bilier scandal—for finding the W pass that eased the crossing of t tinental Divide. It was a seren discovery, a side effect of attem evade hostile Indians. (The relat of the Western Indians to the construction is a saga in itself.)

One fascinating subplot of *Express* is the role of the Chi building the Central Pacific. It cruited them—initially from those already in California, b mately from the mainland—out of a desperation for la and they were con suitable only for th biest of tasks. Eve the Chinese prove skills at many jo earned respect. other things, their t ance (save for the o um pipe on a Sa night) stood in star trast to the white la hell-raising.

Bain's meticulous research is but even more impressive is h at keeping the narrative movin scarcely a dull moment—after all, one knows how the story ends. I hands, the voluminous detail migh caused eyes to glaze over. He a this despite many detours, neces explain key players' backgroun to set the historical context ove years—gold rush, Civil War, raids, and so forth. This rich w tablishes the transcontinental-r project as a transcendent event development not just of the A economy but of the nation itself.

BY JACK DIER

Business Week Online Cons Editor Dierdorff has had a lifelo affair with trains.

BEHIND THE BUILDING OF THE CROSS-COUNTR RAILROAD, A WEB OF GRAFT AND INTRIGUE

Dewar's PROFILE
Whit Alexander & Richard Tait
The co-creators of Cranium

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– Walter Iooss Jr., professional sports photographer

(self portrait)

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–Austin Eckardt; avid surfer, amateur photographer

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BY STEPHEN H. WILDSTROM

AGE OF THE E-PLIANCE?

For those scared of PCs, simple Web and e-mail machines are arriving

Based on what you hear and see in the media, you might think that computers and Internet access are about as ubiquitous in American life as television. But the fact is, only about half of all American households own PCs, and perhaps a third are connected to the Net.

With those numbers staying relatively flat even as the cost of computers has plunged, the industry is now betting that the key to getting the rest of us online lies in simpler, single-purpose devices. The first "Web appliances" have hit the market, with many more to follow. Although the limitations of these devices are serious, the promise is great.

EXTREMELY SIMPLE. I spent some time with the i-opener from Netpliance Inc. (www.netpliance.com). This simple device provides for Web browsing and e-mail, both with some restrictions, and nothing else. The best thing about the i-opener is the extreme simplicity of setting it up. It ships configured for your account, so all you do is take it out of the box, plug in power and a phone line, and turn it on. The i-opener dials out, downloads the latest data and any software updates, and you're in business. This is how an appliance is supposed to work.

The opening screen lists categories, such as news and weather, each of which presents information that has already been downloaded. Even while idle, the i-opener automatically dials up periodically to update the information. The Web Guide category offers an assortment of selected Web sites, grouped by subject, or you can type in any Web address.

Despite a slow processor, the i-opener is as speedy as your 56K modem connection will allow (high-speed cable and DSL access is promised for future versions). But the browser has some annoying shortcomings. It cannot run animated features and other Java applets on Web pages. It also seems to have trouble navigating on complex pages. For example, I could not get around the United Airlines site (www.ual.com) because some pages refused to load. I-opener can play RealAudio, but not video. The good news is that as browser upgrades become available, they will be downloaded and automatically installed.

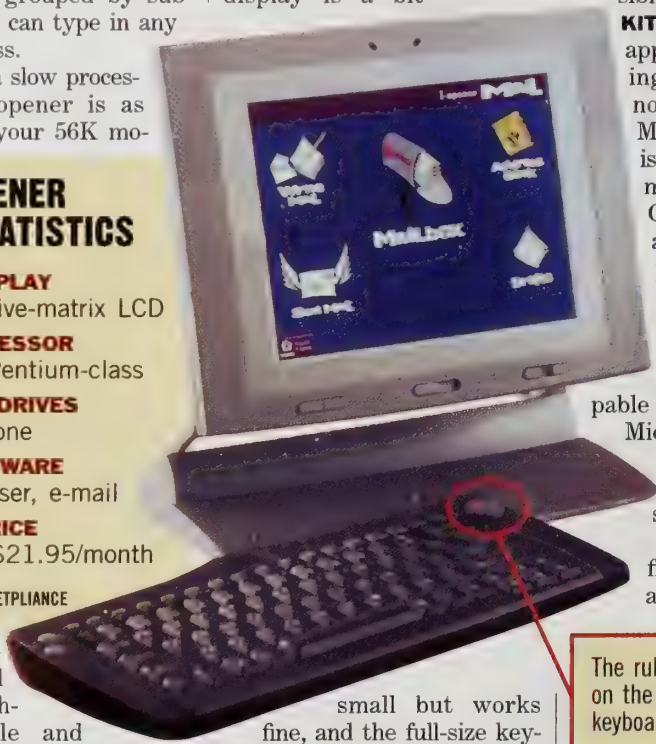
The i-opener includes a simple but serviceable e-mail program. Like most non-PC mail, it can only handle simple text and picture attachments—no Microsoft Word or Excel documents, no video clips. You have to use Netpliance as your Internet service and e-mail provider. (The i-opener costs considerably more to build than its $199 price; Netpliance's business model depends on revenues from selling Internet access for $21.95 a month.)

The 10-inch liquid-crystal display is a bit small but works fine, and the full-size keyboard is good enough for touch-typists. I found the combination of a rubber pointing device at the upper right of the keyboard and two mouse buttons at the upper left awkward to use, but a standard mouse is a $20 option. You can get a Canon inkjet printer for $99.

If all you want from the Internet is e-mail, there are a couple of even cheaper alternatives available. The MailStation from Cidco (www.co.com) is a very simple vice to send and receive mail over a dial connection. The monochr LCD can only handle t messages, and the keybo is too small for comfort touch-typing, but the se like the i-opener's, is id proof. The MailStation c $149 plus $9.95 a month service or $200 with a ye service. The similar e-M PostBox from VT (www.vtechworld.com) c $100 plus $90 for a year's vice but suffers from strange, disabling defect: keyboard has no right s key. I found it nearly imp sible to type on.

KITCHEN READY. Th appliances are the le ing edge of a flood non-PC Internet to Microsoft, for exam is working with sev manufacturers on V Companions, ap ances that use a s plified version of V dows CE, currer found on some ha held computers, a browser more pable than i-opener's. Microsoft-based devi are tied to the c pany's MSN Inter service.

Many people n find that these n appliances make tractive adjuncts in kitchen or elsewhere in house. Future versions be more useful because t will hook into home netwo and share Internet conn tions. Even so, PC users n feel they are giving up much for the sake of simpl ty. But if you want an ur timidating introduction to Web, these new produ could be a good place to st



The rubber pointing device on the upper right of the keyboard is awkward to use

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BY ROBERT J. BARRO

ONE PINOCHET LEGACY THAT DESERVES TO LIVE

KEY CHOICE
As Chile's vibrant economy sinks into recession, a candidate aims to revive the dictator's successful economic reforms

Robert J. Barro is a professor of economics at Harvard University and a senior fellow of the Hoover Institution (rjbweek@harvard.edu).

Unlike many presidential elections, the upcoming second round in Chile on Jan. 16 offers a serious choice of economic and social policies. Ricardo Lagos, the candidate of the ruling coalition, Concertación, promises a continuation of the center-left policies of the last 10 years. In contrast, the center-right candidate, Joaquín Lavín, would extend the promarket reforms of the 1970s and 1980s.

Despite the current recession, Chile has been one of the world's fastest-growing countries. The growth rate of per-capita gross domestic product since 1985—5% per year—ranks among the top half-dozen countries in the world. Although income inequality is high in Chile, as in most of Latin America, the strong growth benefited the poor as well as the rich. In particular, the fraction of the population living in poverty has fallen substantially, even though indexes of the distribution of income have not changed much. In addition, infant mortality fell from around 80 per thousand in the early 1970s to about 11 today, whereas life expectancy climbed from 64 to 75 years. Undoubtedly, this outstanding performance derived from the free-market reforms instituted by the administration of General Augusto Pinochet from 1973 to 1989.

MIXED RECORD. Despite these contributions to economic and social conditions, Pinochet remains as one of the most hated targets of the world's leftists. Some of this antipathy derives from the general's poor human rights record, especially in 1974-76 after the coup against President Salvador Allende. The crimes of these years did not seem necessary for maintaining power or making essential legal changes and therefore cannot be justified on these grounds. However, the abuses do not stand out among those of other dictators, and Pinochet ought to receive credit for peacefully relinquishing most of his authority in 1989. I think that the extent and durability of the animosity reflects the very economic success—no one has done more than Pinochet and his economic teams to demonstrate the superiority of free-market capitalism over socialism.

Chile has dealt reasonably well with the conflict between Pinochet's human rights failures and his economic successes. A legal amnesty allowed the country to achieve sufficient consensus to consolidate democracy without destroying the pro-market economic system. This consensus has been disturl by the propensity of the current adminis tion, led by President Eduardo Frei, to pr ecute retired generals for crimes of the 19 Further trouble came in London in Octo 1998, when Pinochet was arrested on the quest of an out-of-control Spanish judge, was tacitly supported by British Prime M ister Tony Blair. The Frei government sho have regarded this detention as a warlike that threatened the sovereignty of Chile. stead, the Chilean government responded o with mild objections.

WHITTLED DOWN. The irony is that Pinoch absence from Chile now seems to be bene ing the opposition candidate, Lavín, in quest for the presidency. Lagos' econo program is summarized by his motto "grov with equality," a phrase that unfortunat reminds me of George W. Bush's "comp sionate conservatism." The basic idea is maintain—and, hence, get a free ride o the basic economic reforms that were acco plished under Pinochet while chipping aw with added labor-market regulations and m social-welfare programs.

This approach would probably be m popular today in Chile if the country we not experiencing a substantial recession, w the unemployment rate rising above 11 Lavín's idea is to resume economic grow by finishing the job of reform. One possib ty, which Lavín promises not to pursue wi out labor's support, is to begin the last ma remaining privatization project, the massi state-owned copper company, Codelco. B the most exciting possibilities involve d matic expansions of the use of the market the health and education sectors. Somehow, seems appropriate that Chile, the count that led the way in privatization of soc security under Pinochet, would also sh the world how to use markets to impro the quality of health care and of prima and secondary schooling.

Maybe Chileans should make their choice the upcoming presidential contest solely the basis of the candidates' educational bac grounds. In Lagos, they can get a PhD economics from Duke University, whereas Lavín, they can get a master's degree in ec nomics from the University of Chicago. S the question is, what's better, a PhD fro Duke or a master's from Chicago? Personal I think the choice is pretty obvious.

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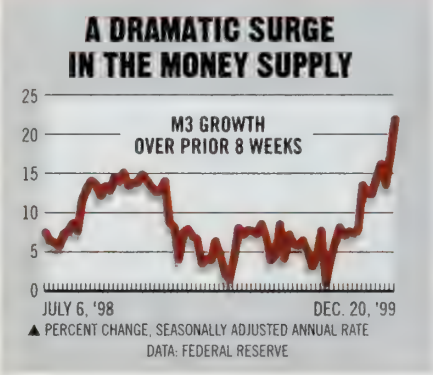
BY GENE KORETZ

THE FED'S Y2K HANGOVER

Why it could jack up rates

Remember the money supply? Although Federal Reserve policymakers pay little attention to its fluctuations these days, many economists are casting a wary eye on the latest money numbers—especially the broad M3 monetary aggregate, which includes currency, checking accounts, money-market funds, and savings deposits, as well as large CDs and other bank liabilities.

One concerned observer is Paul L. Kasriel of Chicago's Northern Trust Co., who notes that in the eight weeks ended Dec. 20, M3 growth soared to a 22% annual rate, the highest in at least 15 years, while bank-credit growth hit a 23.4% annual clip. This dual pattern, he says, suggests that "Fed Chairman Alan Greenspan has been inadvertently spiking the monetary punch rather than taking the punch bowl away."



The conventional wisdom, observes Kasriel, is that the explosive growth of M3 is basically a Y2K phenomenon, reflecting the public's desire to hold a lot more currency as the calendar flipped to the year 2000. But while people's demand for currency did shoot up at a 21.3% rate in recent months, he points out that most folks obtain cash by running down their checking and savings deposits, which are also part of the M3 money supply. "Changing the composition of M3," he says, "doesn't necessarily increase its growth rate."

To be sure, money growth could accelerate if the public's currency withdrawals ate into the banks' required reserves or if the banks aggressively increased their holdings of vault cash to meet anticipated public demand. In fact, the Fed did add reserves to the banking system in recent months to offset such needs and keep the banking system on an even keel.

Such defensive operations alone, however, are hardly a reason for monetary growth to explode. From Nov. 1 to Dec. 20, as M3 before seasonal adjustment shot up $245 billion, its currency component rose only $23 billion and surplus vault cash just $13 billion.

Thus, the key factor behind M3's heady growth appears to be the Fed's accommodation of the surge in bank lending—which has exceeded even the soaring bank loan growth in late 1998, when credit market problems in the wake of the Russian default and hedge-fund debacles forced corporations to turn to the banks for funds. And this time around, notes Kasriel, far faster growth is being posted by consumer and real estate loans than by commercial and industrial loans. Even margin debt has been skyrocketing.

In sum, Kasriel thinks the recent explosion in M3 has more to do with strong credit demands in the economy than with Y2K concerns. And that suggests that the Fed will be far more aggressive in pushing up rates in coming months than many people expect.

HAZARDOUS TO YOUR CAREER

The risks of taking unpaid leaves

Millions of Americans have availed themselves of the Family & Medical Leave Act of 1993, which permits employees to take unpaid leaves of up to 12 weeks for family or medical reasons. According to a study in the current issue of the *Academy of Management Journal*, however, such leaves may entail significant risks for managers.

In the study, Michael K. Judiesch and Karen S. Lyness of the City University of New York's Baruch College compared the progress of 523 full-time managers of a big financial-services company who took leaves in the early 1990s with that of their peers from 1993 to mid-1995. Adjusting for age, gender, education, and job factors, they found that leave-takers were 18% less likely to be promoted than non-leave-takers and received 8% less in salary hikes.

The median length of leave was less than two months, and though some lasted much longer, the study found that the length of absences did not affect penalties. (Multiple leave-takers, however, were more heavily penalize

Not only did leave-takers tend to ceive lower job performance ratings the year in which they took time but they also received fewer pron tions and smaller salary increases th their peers with similar low ratin Still, a third of leave-takers did sub quently receive promotions.

Whether they will eventually cat up with their peers, however, is unc tain. The researchers note that th managers receiving early promotio tend to enter an especially fast tra rising more rapidly to higher levels.

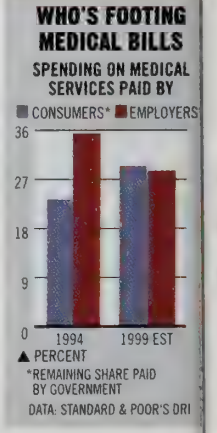
EMPLOYERS TAM MEDICAL COSTS

But workers pick up a bigger sha

With health-care inflation head higher, you might think that e ployers' fringe-benefit costs also wo be in danger of taking off. Econom David A. Wyss of Standard & Poo DRI, however, argues that the impa on companies' outlays for employe medical insurance will be muted.

The reason is that employers in t 1990s have been passing a significa part of rising health-care costs to the employees by requiring them to an up for higher co-payments and shares premium expenses. With income t rates down from their levels in pri decades, the tax benefit of employe subsidized health insurance to emplo ees has declined—possibly lessening i appeal to some who prefer to recei more of their compensation in cash.

In any case, the share of health-ca costs in the U. S. covered by employ payments has fallen steadily in rece years, from 35.3% in 1994 to an estima ed 28.7% in 1999. Meanwhile, the sha paid by consumers has risen from 23.2 to 29.3%, and government's share (mainly Medicare and Medicaid) has edged up from 41.5% to 42%. Looking ahead, DRI expects this pattern to continue, with employer payments for medical insurance rising much more slowly than health-care cost inflation, and consumers assuming more of the burden.



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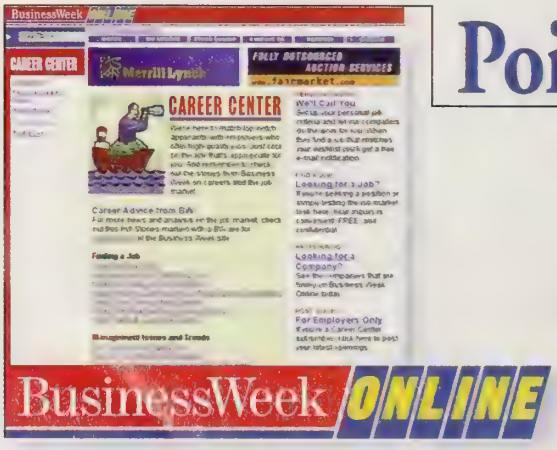

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JAMES C. COOPER & KATHLEEN MADIGAN

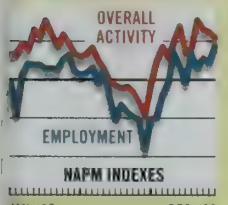
WHAT'S WORRYING WALL STREET: TIGHTER MONEY

Red-hot demand and strained labor markets may force more rate hikes

U.S. ECONOMY Wall Street is entering the new year in the grip of Fed-phobia. The bond market started to come down with it few weeks ago, and now it seems to be spreading to the stock market.

It's not an unreasonable fear. Now that the world's computers safely recognize the year 2000, Wall Street believes there are no liquidity problems to stop the Fed from nudging up interest rates yet again, perhaps as soon as its Feb. 1-2 policy meeting. Such a move would be considerably earlier than the markets had been expecting as 1999 wound down. Already, the credit markets have priced a February rate hike into the yields on key securities, as well as an increasing chance of another tightening in March.

INDUSTRIAL ACTIVITY IS PICKING UP



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What might have been unreasonable was the Dow Jones industrial average's surge at yearend—coming at the same time the bond market was tanking. That plunge in bond prices sent the yield on the 30-year Treasury bond soaring from just over 6% to more than 6.6%, a 27-month high. But in the same final six weeks of 1999, the Dow gained some points. It wasn't until the new year that worries about higher rates began to spread. On the first trading day of 2000, the Dow fell 140 points, followed by a 360-point drop the next day. And on Jan. 4, the tech-heavy Nasdaq index plunged a stunning 5.6%. The Dow managed to recoup 125 points on Jan. 5, even as bond yields rebounded sharply higher.

THE MARKET JITTERS are easy to understand when you consider that six months after the Federal Reserve began raising rates, there are still no concrete signs that the U.S. economy, with its consumer-powered demand and its drum-tight labor markets, is cooling off. The latest evidence: Carmakers said that December sales were gangbusters, and early reports show that retailers, along with e-tailers, enjoyed one of the best Decembers of the decade.

Also, the latest factory reports from the government and the nation's purchasing managers look strong (charts). Plus, Y2K-related distortions, especially from inventory gyrations, are now expected to impart little, if any, drag on first-quarter growth, even as foreign economies continue to shift into a higher gear.

In addition, you can add in one other ingredient to this year's policy mix: The four Federal Reserve district presidents who rotate onto the policymaking committee in 2000 tend to be a bit more hawkish on inflation than the four members they replace. Clearly, Fed Chairman Alan Greenspan, renominated by President Clinton on Jan. 4 for a fourth term, will still wield the most influence around the big oval table, but the new composition will almost certainly affect the debate.

To be sure, the financial markets, especially for bonds, are helping to supply the tighter financial conditions that the Fed would like to see. But keep in mind that last year's rise in long-term rates had only a small negative impact on housing demand—the economy's most interest-sensitive sector—and no discernible effect on the overall economy.

SALES KEEP OUTPACING INVENTORIES

▲ PERCENT CHANGE FROM A YEAR AGO
DATA COMMERCE DEPT BUSINESS WEEK

Moreover, last year's fluctuations in both the bond and stock markets show that, unless the Fed validates market expectations by raising rates, the markets will only rally again, putting financial stimulus back into the economy. Obviously, last year's 25% rise in the Dow will only augment the already considerable wealth stimulus that is helping to fuel consumer spending.

RECENT EVIDENCE of the continued gains in household spending includes car buying and retail sales, which have resulted in a stronger level of industrial activity. First, amid very strong December sales, domestic and imported cars and light trucks posted the highest yearly total on record: 17 million vehicles. That tops the 1998 total of 15.5 million, which was the best performance since 1986, when sales surged temporarily in response to tax-law changes and heavy dealer incentives.

Second, holiday buying last month was exceptionally robust. Based on its check-clearing data, TeleCheck Services Inc. says that its measure of same-store sales from Dec. 1 through Dec. 31 rose 5.8% from a year ago. That gain was down only slightly from the four weeks ended Dec. 24, suggesting that buying remained strong past Christmas.

Indeed, the weekly retail survey by LJR Redbook Re-

search shows that seasonally adjusted sales in the five fiscal weeks of December rose a sizable 1.8% compared with all of November, and sales strengthened after the final week's data was included.

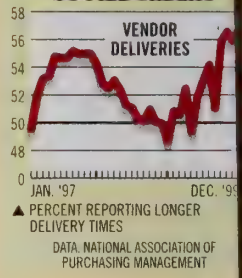
With consumer demand so strong and foreign demand increasing, it's little wonder that the industrial sector continues to gear up. Although the National Association of Purchasing Management's December index of industrial activity dipped to 55.5%, from 56.2% in November, the decline was small, and the index for the entire fourth quarter averaged 56.1%. That was the best quarterly showing in five years.

While the purchasers said that orders and inventory growth slowed, they also reported that production and employment picked up. In fact, the employment index hit an 11-year high. Moreover, the index of prices paid also rose and delivery times slowed. Deliveries in December were the slowest since 1995, a sign that rising demand is starting to crimp the flow of goods through distribution channels (chart). That has often been a precursor to rising pressure on prices.

THE NAPM ALSO SUPPLIED further evidence that companies were not doing much in the way of precautionary inventory-building for Y2K-related reasons. The purchasers' inventory index fell in December to a level indicating that stockpiles were actually falling. Also, the NAPM said that many companies began to believe last month that Y2K was apparently going t a nonevent. As a result, the feared first-quarter li dation of heavy fourth-quarter inventories won't pen, removing a possible drag on economic growth

Government data show that factory inventory gr did pick up a bit in both October and November, ri 0.3% in each month. But that's still far slower t shipments. In the six months ended in November, tory shipments grew nearly four times faster t stock level, suggesting that further additions to in tories will be necessary in the first quarter.

Manufacturers of construction-related goods are especially benefitting from the strong building sector. Construction outlays jumped 2.4% in November after price adjustment, with gains in both homebuilding and commercial construction. Housing activity ended 1999 at a high level.



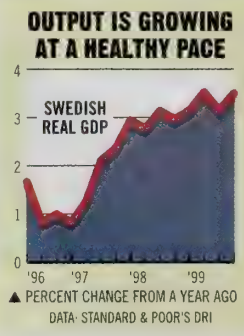
The Fed made it clear after its Dec. 21 meeting that after any Y2K worries had passed, a lack of any s that demand was cooling off to a sustainable p would very likely elicit further action. Well, Y2K wa bust, and the economy is still red hot. It looks like W Street has finally put two and two together.

SWEDEN

SO FAR, A HOT WINTER IN SWEDEN, TOO

Sweden's economy continues to grow at an impressive rate with few signs of inflation. Nonetheless, the central bank, the Riksbank, has indicated that further interest-rate hikes are on the way.

Real gross domestic product grew 0.9% in the third quarter from the second. Output is up 4.1% from a year ago, the fastest pace in 4½ years (chart).



Consumers are powering the expansion. Household spending in the third quarter rose 4.8% from a year ago. But exports also did better in the quarter, rising 4.9%, as Swedish producers benefitted from faster growth in the euro zone. The early signs for the fourth quarter are mixed. Industrial production is trending higher, but confidence among both consumers and manufacturers slipped in November. Even so, Sweden's GDP likely grew 3.6% for all of 1999, and it is expected to rise 3.7% in 2000.

Despite robust demand, price pressures are few. Total consumer prices were up 0.8% in the year ended in November, and the underlying rate, which excludes mortgage costs and taxes, is rising just 1.6%, below the Riksbank target of 2%.

For now, Sweden is in no hurry to join the euro zone. Prime Minister Göran Persson has said that a vote to join the single-currency group probably would not take place until 2002, though technically, a referendum could be held in 2001. Surveys show that sentimen is shifting toward convergence. But with a bright domestic outlook, euro membership holds few advantages for the Scandinavian nation.

In fact, Sweden's independence allows the Riksbank greater leeway for monetary policy. Already, the central bank has given notice that further rate hikes are in the offing. With Sweden's unemployment rate at a low 5.2% and producer prices trending higher, the Riksbank wants to head off any cost pressures from infiltrating the strong economy. To that end, the bank lifted its target repurchase rate from 2.9% to 3.25% at its November meeting. And investor expectations are rising that another hike could come at the next meeting, on Feb. 3.

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STOCKS

RATES START TO BITE

Though other forces pounded stocks, interest rate hikes were key

For weeks, the markets confounded the conventional wisdom—that rising interest rates had to produce falling stock prices. As the Nasdaq, the Dow, and the Standard & Poor's 500 all hit new highs in December, people began to wonder if the New Economy had wiped out another Old Economy rule.

Then came the new year. On the first trading days of 2000, interest rates took center stage. And with the spotlight on the long-bond yielding 6.6%—the highest in 27 months—and the odds of a Federal Reserve rate hike rising, too, investors took out the old rule book and sold. With a vengeance. The major U. S. indexes and bourses around the world tumbled by as much as 7%—prompting anxiety that the long-feared bear market might be getting under way.

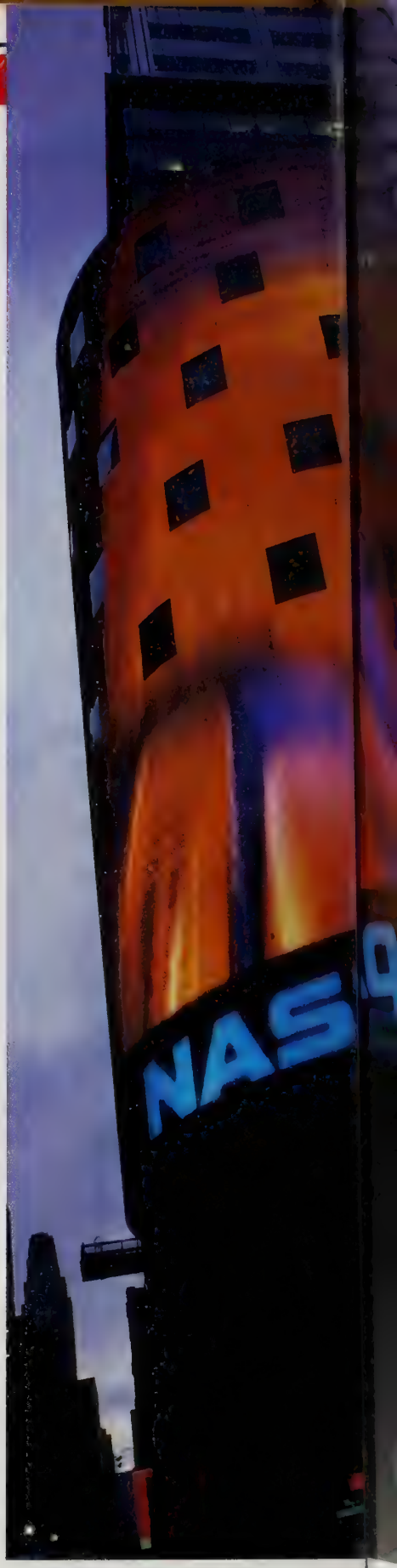
But despite the apparent free-fall of the Nasdaq, no such danger is present—yet. If rates stay where they are or tick up a bit, the market will most likely weather the storm. Indeed, rosy corporate earnings may lead the market even higher. And the markets may already reflect what is emerging as a consensus on the Fed's next move at its February meeting: A hike in the discount rate by as much as a half-point. This is aimed at cooling an economy that likely grew at a too-hot 5% rate in the fourth quarter and is seeing signs of commodity price inflation. A second hike at the subsequent meeting is also widely expected.

That implies long rates of 7%, which certainly does not come under the heading of good news. Even now, the reversal of the markets may have choked off the broadening that had just begun. For, after a year during which only a few spectacular issues—mostly in tech—propelled the indices, in the last weeks of 1999 more small- and mid-cap stocks joined the runup. Now, many of those issues, especially Old-Economy-style equities which are sensitive to interest-rates, have fallen behind again.

Rates aren't the only factor in the sell-off. Some of it was simple first-of-the-year profit-taking by investors who wanted to slough their huge capital gains into a new tax year. That affected the high-flying Nasdaq, in particular. The Nasdaq, which posted an 86% gain in 1999 thanks to a yearend surge by large-cap tech issues such as Qualcomm, was also ripe for revaluation: The Nasdaq 100, the largest issues on the exchange, were valued at a staggering 130 times earnings at yearend.

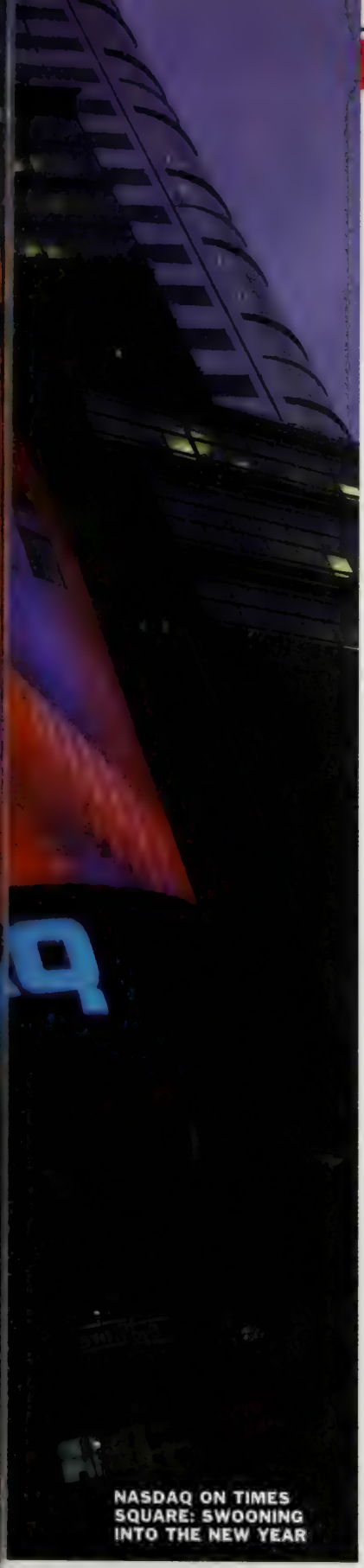
BLAHS-BUSTER. Another factor in this witch's brew: With the economy safely past the Y2K hurdle, the Fed is draining the extra liquidity it had injected into money markets as Y2K insurance. Many now suspect that, just as initial injections more than a month ago began to push the market up, so the withdrawal took the steam out of the rise.

Above all, however, looms the specter of higher interest rates. "You can't shake the fact that a lot of investors are worried about rising rates," says John L. Manley Jr., Salomon Smith Barney's chief market strategist, who on Jan. 4 reduced the firm's equity position from 60% to 55% and increased its cash position from 5% to 10%.



PHOTOGRAPH BY EVAN KAFKA

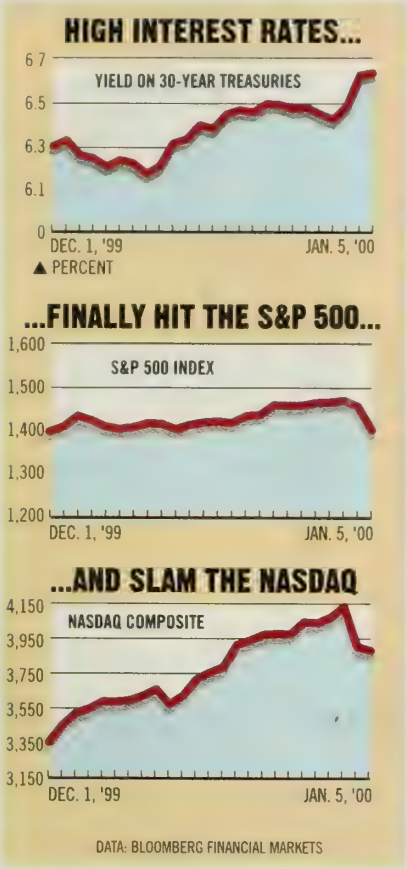
What else buffeted the market? First-of-the-year profit



NASDAQ ON TIMES SQUARE: SWOONING INTO THE NEW YEAR

Even so, the market could well shake off its New Year's blahs. For one thing, annual earnings for the S&P 500 stocks for 1999 will be reported in the next few weeks and analysts expect them to come in 15% over the year before. Profits at technology companies, such as Microsoft Corp., are expected to jump an incredible 42%.

Moreover, the relationship between interest rates and equity values may be changing—at least when it comes to New Economy stocks. Companies such as Amazon.com Inc. and CMGI Inc.—big factors in the Nasdaq 100—have yet to post earnings. Their growth potential alone has spurred higher prices. "You've got an amazing number of investors who are buying these tech stocks and are relying solely on momentum and growth prospects. Interest rates barely enter into the equation," says Laszlo Birinyi Jr., who runs his own research firm and serves as global strategist at Deutsche Bank Securities Inc.



Another reason tech stocks won't be hit as hard by rising rates long-term, says Birinyi: Many tech companies—and Internet companies in particular—don't go to market to borrow capital. Instead, they rely on venture capitalists and lucrative initial public offerings. "There are so many elements of this equation that are different from the classic business model of 50 years ago," he says.

So, for some investors, Nasdaq dips accompanying rate increases merely present buying opportunities. Over the past six years, according to MarketHistory.com, an investment-research firm, whenever the 10-year Treasury note yield has risen 10 basis points, in the following four days the Dow, the S&P, and Nasdaq have dipped 2%. But in the subsequent four days, the Nasdaq Composite rise[illegible] more than 7%, while the S&P and Dow go up only 4%.

Where rising rates will cause the most blood-letting is in the already downtrodden value sector, where interest-rate-sensitive stocks such as John Deere and General Motors lurk. Indeed, rising rates could derail the fledgling comeback of these stocks, which have once again shown signs of life, thanks to an improving global scenario. In fact, rising rates could crimp the broadening of the market that began in the fourth quarter, when many stocks outside of the S&P 500 performed exceedingly well. For the year, for instance, the Russell 2000 Growth and Mid-Cap Growth Indexes posted gains of 43.08% and 51.3%, respectively, outstripping the Dow and the S&P.

But inside the major indexes, the performance remains narrow. Only 25 stocks, including Microsoft and America Online Inc., were responsible for the entire gain in the S&P 500 last year on a market-cap-weighted basis, according to Salomon Smith Barney. "This has created a bifurcated market where only the top tier of the S&P is performing, [along with] growth stocks that are too small to be part of the S&P," says Gerold F. Klauer, founding partner of Gerard Klauer Mattison & Co., a New York investment firm.

In the end, no matter how much good news you try to dredge up, much of the markets' future rests with the Fed. After an exceedingly strong Jan. 5 report on November factory orders, Wall Street strategists and economists agree that the Fed will almost certainly raise rates at least 25 basis points in February and maybe as much as 50. "The Fed wants to dilute the punch a little bit, but they don't want the party to

ing, and the withdrawal of extra Y2K cash by the Fed

end," says William C. Dudley, chief U.S. economist at Goldman, Sachs & Co. And many, including Dudley, insist that at least one, and possibly two, hikes have already been priced into both the stock and bond markets.

In fact, now that Y2K has passed without incident and the economy appears to be more and more robust, many economists believe that the Fed could tighten a third and even fourth time, especially if the stock market resumes its meteoric rise after this current pullback. "The Fed is increasingly looking at the market as a key inflation indicator. And it should: The stock market has a $14 trillion market cap versus a gross domestic product of $9 trillion. But 10 years ago, the stock market was only half of the GDP," says James A. Bianco, who runs Bianco Research in Barrington, Ill. And most Wall Street strategists, including super-bull Abby Joseph Cohen, are saying that the tech and telecom sectors, in particular, should see less dramatic growth going forward.

Perhaps more importantly, Fed Chairman Alan Greenspan has repeatedly voiced concerns over the euphoric, speculative nature of the stock market. "Put it this way, if there's a battle between the stock market and the Fed, the Fed will tighten until it wins," says Salomon Smith Barney equity strategist Jeffrey M. Warantz.

Still, as for derailing highly valued U.S. tech and telecom stocks, experts say interest rates would have to climb to a "psychologically significant" level and stay there to have a profound effect on the market. "Yields must go up a lot in order to be competitive i vestment alternative to stocks says Bianco.

Bianco's magic number? H thinks 7% possibly, but 7.5% de nitely would hurt the highflier And while that was unthinkab this time last year, he is forecastin that rates will peak at 7.5% b midyear. "Once you go over the to and interest rates are so high tha they actually start to hurt valu stocks and the economy, then th prospects of an AOL or Yahoo! In are in big trouble," he says.

In fact, rising rates may alread be causing a "flight to quality", i tech stocks: That is, investors ar willing to bet their money only o stocks with proven earnings an track records. "When rates rise, we'r seeing a dramatic switch from the click able world into blue-chip tech stock like Motorola and Dell," says Williar B. Noble, market strategist a MarketHistory.com.

And that means that interest rate still count, no matter how much Ne Economy thinkers and strategists ma want to ignore them.

By Marcia Vicker in New Yor

WILL THE SMALL-AND MID-CAP REVIVAL BE KILLED?

Mid-cap and small-cap growth outperforms both the Dow and S&P

	FIRST 3 QUARTERS % GAIN	FOURTH QUARTER % GAIN
DOW JONES INDUSTRIAL AVERAGE	15.5	11.42
S&P 500	6.16	14.93
NASDAQ COMPOSITE	37.69	48.26
RUSSELL MIDCAP GROWTH	11.84	39.47
RUSSELL 2000 GROWTH	9.68	33.40
RUSSELL 2000	2.72	18.45

DATA: BLOOMBERG FINANCIAL MARKETS; ARONSON & PARTNERS

A FAULTY INDICATOR, A SKEWED FORECAST?

For more than a year, market mavens have been saying stocks can't keep going up because the advance is being supported by a narrowing list of equities. In large part, they base their argument on a widely used statistic: the New York Stock Exchange's advance-decline ratio.

The A-D ratio is simply the number of issues that have risen in price compared with the number of issues suffering price declines during a particular trading session. Indeed, throughout last year, the advance-decline data consistently indicated that the number of stocks declining far exceeded the number of those advancing, even as the overall market rose. That prompted much anxiety on Wall Street where a weak or negative A-D ratio is regarded as a sure sign that the market is peaking.

But the NYSE's A-D ratio may not be a reliable signal after all. To be sure, at the end of the year, it has fallen to its lowest level since 1995, with the number of NYSE stocks hitting new 52-week lows exceeding those at new highs by 10 to 1. But that's deceptive: The numbers include the 884 preferred stocks that account for almost 25% of total NYSE-listed issues. Preferred stocks don't act like common stocks; they're more like bonds because they pay regular, fixed dividends. So, as interest rates increased steadily through 1999, preferreds got hit. Take out preferreds, and the NYSE A-D line improves, showing far more advancing issues.

The market's breadth is broader than the NYSE's advance-decline ratio shows

The reverse is also true—when interest rates fall, preferreds rise. Case in point: on Jan. 4, when interest rates slumped, the Standard & Poors 500-stock index and Dow Jones industrial average dropped more than 3% and the Nasdaq some 6%. With the market so sharply down that day, one would have expected that the A-D ratio be top-heavy with losers. But lo and behold, declining NYSE issues outpaced advancing issues by only 2 to 1. The reason: Preferred stocks went up. In fact, on Jan. 4, using only common stocks, the ratio goes to 3-1.

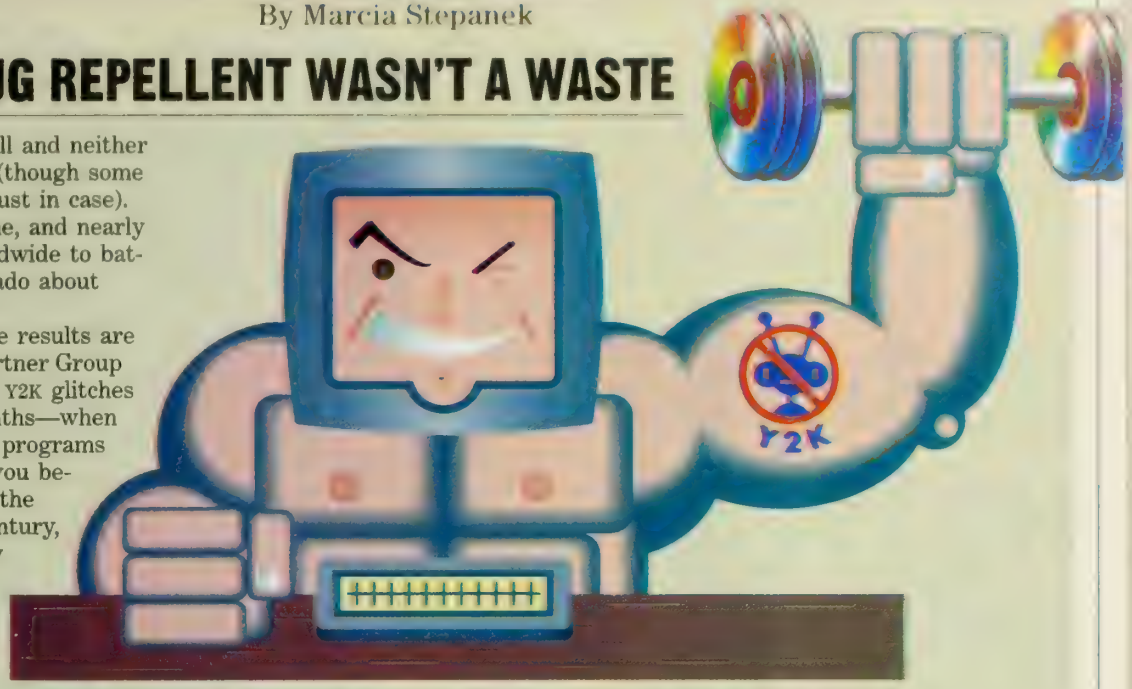
But there may be an even bigger debate raging over the NYSE A-D ratio. Some market technicians, such as Salomon Smith Barney's Louise Yamada, think that because the NYSE has a decreasing technology composition as well as a shrinking number of large-cap issues, it's A-D ratio is becoming less pertinent. "As technicians, it's hard to throw away a tried-and-true indicator. But market leadership is shifting to the Nasdaq from the NYSE," she says.

By Marcia Vickers in New York

COMMENTARY

By Marcia Stepanek

THE Y2K BUG REPELLENT WASN'T A WASTE



So the sky didn't fall and neither did any elevators (though some were shut down, just in case). Was all the hoopla, time, and nearly $600 billion spent worldwide to battle the Y2K bug much ado about nothing?

Probably not. All the results are not yet in, and the Gartner Group says that some 90% of Y2K glitches won't show up for months—when all potentially affected programs are used. But even if you believe the Y2K bug was the biggest scam of the century, all the time and money spent on debugging and reprogramming was definitely not wasted. It undoubtedly headed off many real and potential problems. But more importantly for the long term, Y2K preparation efforts forced companies and government agencies all over the world to get rid of buggy old software and aging hardware and invest in new technology.

BOARDROOM ENTREE. Now, systems are in place to provide a solid foundation for all sorts of new online systems for e-commerce and e-government. And the chief information officers who last year huddled with top management in Y2K war rooms, are now being invited into the boardroom for marketing and business-strategy sessions, some for the first time.

Ultimately, Y2K forced some companies to rethink the role of technology. "It helped many companies to realize that information technology is the business—and not just about a bunch of geeks in the corner office," says Bruce Webster, an analyst for PricewaterhouseCoopers.

With new, more "robust" networks in place, companies can take full advantage of the Web and e-commerce to streamline their businesses and reach new markets (page 36).

Take Washington Gas & Light Co. All employees are now hooked up to the Net for the first time, making it possible to share information and coordinate activities of different operations. "We're more efficient now," says CEO James H. DeGraffenreidt Jr. Before Y2K upgrades, he says, "we'd tell customers what day our service people could be there. Now we can tell them which hour."

At Marriott International Inc., guests now get computer connections in their rooms where fewer existed before. That's an improvement that came about because the chain had to make Y2K fixes to hotel phone systems. Says Marriott Y2K czar Ina Kamenz: "We asked ourselves in this whole thing, 'do you fix old stuff with Band-Aids, or do you spend a little more money and put in new stuff while you're at it?' " she says. Marriott opted to spend the extra money.

At company after company, the Y2K bug-hunt yielded unexpected benefits. DaimlerChrysler, which spent $260 million to smoke out some 250,000 Y2K bugs, ended up deep-sixing 15,000 old computer programs. That not only cleaned out the digital cobwebs, it also made it possible for two-thirds of its plants to connect with each other on the same network for the first time. Now, "if we want to modernize again, we can all move at once in the same direction," says Roger Buck, the head of DaimlerChrysler's Y2K operations.

Even the federal government, which still relies on some systems installed decades ago, got with the modernization program. The Y2K bug was just the bogey monster needed to get more technology dollars put into agency budgets. "The Y2K threat put a gun to many of these old systems and finally put them out of their misery," says PWC's Webster.

Y2K TASKMASTER. There were other payoffs: Technology departments, famous for going over budget and missing deadlines, had new discipline imposed by Y2K. Now, says Marriott's Kamenz, "we've got tougher standards in place for the installation, purchase, and care of technology."

And the success of Y2K revamps may convince more boards to continue investing in tech: According to the Gartner Group, companies say they expect to spend as much as half of their tech budgets on e-commerce by fall. Predicts Gartner senior researcher Lou Marcoccio: "E-commerce and e-business spending will simply explode." As long as still dormant Y2K bugs don't, that is.

PAYOFF With new, more "robust" networks in place, companies can take fuller advantage of the Web and e-commerce

Stepanek covers technology and e-business from New York.

THE INTERNET ECONOMY

B2B: THE HOTTEST NET BET YET?

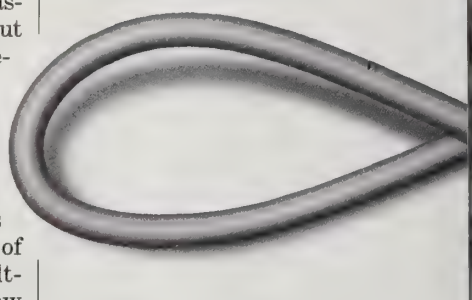
Business-to-business Web outfits may wind up having even more impact than e-tailers

Since early last fall, Internet stock pickers have been saying the next big thing would be business-to-business technology. Sure, Amazon.com, Yahoo!, and America Online are still the Net's stars. But for sheer potential, nothing could beat stocks in companies that teach General Motors Corp. and General Electric Co. how to be e-businesses. The feeding frenzy over B2B issues hit its peak—along with the Nasdaq—in December when FreeMarkets Inc. went public. The Pittsburgh software maker, which holds auctions for old-line manufacturers' suppliers, saw its stock jump fivefold on the first day of trading.

Now, the Nasdaq and FreeMarkets have both had a sobering setback. On Jan. 4, the same day on which investors began retreating from overpriced e-commerce stocks (page 32), FreeMarkets was dealt a huge blow: GM, the biggest U.S. manufacturer and the company that accounts for 20% of FreeMarkets' revenue, picked another horse to ride into the e-future. The carmaker chose technology from Commerce One, a FreeMarkets rival in which it has assumed an ownership stake. The Walnut Creek (Calif.) software house will create a vast network to handle procurement of everything from staples to steering wheels.

But the good news for those betting on B2B is that GM is still gung ho on the concept. And so are companies across the economy. In the middle of the Nasdaq's 229-point Jan. 4 meltdown, a startup called Appnet Inc. saw its shares shoot up 14%, to 51, after it announced a deal to market its B2B e-commerce software with MCI WorldCom Inc.

EXPLODING. Whether or not B2B stocks fare any better than other Internet issues, the reason behind investors' interest remains valid: As more and more companies look for ways to do business on the Web, they will invest enormous sums into the technology to make it work. Total sales using B2B e-commerce have exploded from almost zero a few years ago to $114 billion today, according to Goldman, Sachs & Co. And Deloitte Consulting LLC estimates that 91% of U.S. businesses will do their purchasing on the Net by the end of next year. Some 31% do so now. By 2003, Deloitte projects B2B sales will be six times as large as the business-to-consumer market.



Behind the investment is the promis of a big payoff. A Federal Reserv Bank of New York study says that i general, the B2B boom could lead to lov er prices, higher productivity, and r duced labor costs. David Pecaut, c head of global e-commerce at Bosto Consulting Group Inc., figures that, i manufacturing alone, B2B e-commerc will boost productivity by 9% withi the next five years. And a recent Gol man Sachs study concludes that B2B e commerce could slash processing cost by more than 20% in industries such a electronics and freight transport (table Business costs overall could fall by a much as 12.5%.

How? Consider one small example At Norfolk Southern Railway, Herma Ricker, an assistant contract manage used to spend hours calling construc

ı outfits when he needed repair work. The process k days, and he was never sure was reaching all the best conctors. Now, he does it all on the t. When he needed repairs on a r-span bridge in Buffalo, Ricker soted bids over RailNet-USA.com, a b site set up exclusively for rail ıtractors. Within days, he had 14 s, far more than normal. Ricker o figures the process yields more npetitive bids, and the time he sn't spend on the phone he can ote to other projects.

At GE, where CEO John F. lch Jr. has ordered a move e-processes, B2B techogy is being applied erywhere. At GE In mation Services, ployees use a sysn called Trading rtner Netrk Register to order office supplies from pre-qualified vendors over the Internet. Gary M. Reiner, GE's chief information officer, estimates that making purchases offline can cost between 50 and $200 per transaction because all the paperwork involved. The cost ine? Only about $1.

Proponents of B2B say you ı do this with all sorts of nsactions and in all kinds companies. The upshot: re productivity and the ance for companies to conue boosting profits without ting prices. It could even ce the costs downward. he Internet represents the st powerful engine of detion in the modern era," ys Thomas F. Carpenter, ınaging director of ASB pital Management Inc. in ashington.

No wonder money is floodg into business-to-business hnology suppliers and ser es. In 1999, venture capiists plowed $3 billion into 200 B2B companies in 1999, more than triple the amount they invested the previous year, according to Venture Economics Information Services. About $11 billion flowed into business-to-consumer Internet companies last year. The momentum is now with B2B, says Venture Economics.

"WIDE OPEN." Behind the accelerating investments is the suddenly rapid uptake of B2B technology. For two decades, companies have been using electronic networks to exchange orders and invoices. But until the Internet came along, such setups were costly and limited: You could deal electronically only with a business on your private network. By 1999, only 150,000 companies had adopted these electronic data interchange (EDI) systems, according to Morgan Stanley Dean Witter. Since the 1994 introduction of Web browsers, millions of companies have gone online and can connect to such B2B marketplaces as the construction industry's BuilderSupplyNet.com and the confection industry's CandyCommerce.com. "It's accelerated from a stodgy, closed club to a wide open market," says John Wenninger, a New York Fed economist who follows B2B.

Nowhere is the change more apparent than in Detroit, where EDI got its start. In November, Ford Motor Co. and GM unveiled plans to go online with their massive purchasing systems, which each year acquire $80 billion and $87 billion, respectively, in goods and services. Ford has forged a partnership with Silicon Valley powerhouse Oracle Corp. to create AutoXchange, a purchasing system that will use an online auction—a sort of heavy metal eBay—to fill orders.

Soon, companies that are not using online technology could be at a disadvantage. Norfolk Southern's Ricker says there's no turning back. He expects to use RailNet over and over again. "It's easier to work in this system," he says. "We're hoping to get more competitive bids." That's a better way to run a railroad—and to keep the U.S. economy on track.

By Laura Cohn in Washington, with Diane Brady in New York and David Welch in Detroit

E-COMMERCE REDUCES THE COST OF DOING BUSINESS

INDUSTRY	ESTIMATED SAVINGS FROM BUSINESS-TO-BUSINESS E-COMMERCE*
AEROSPACE MACHINING	11%
CHEMICALS	10%
COAL	2%
COMMUNICATIONS	5-15%
COMPUTING	11-20%
ELECTRONIC COMPONENTS	29-39%
FOOD INGREDIENTS	3-5%
FOREST PRODUCTS	15-25%
FREIGHT TRANSPORT	15-20%
HEALTH CARE	5%
LIFE SCIENCES	12-19%
MACHINING (METALS)	22%
MEDIA & ADVERTISING	10-15%
MRO**	10%
OIL & GAS	5-15%
PAPER	10%
STEEL	11%

* Analysis compared B2B techniques with traditional business methods, such as paper, telephone, fax or value-added networks.

** Maintenance, repair, and operating supplies

DATA: GOLDMAN SACHS

THE INTERNET

THE DOT.COMS FALLING TO EARTH

Holiday sales were way up–but some e-tailers are way down

In the end, Christmas '99 lived up to its billing as America's first e-Christmas. Consumers tripled online purchases, to more than $10 billion. But even before Christmas trees hit the curb, investors were asking pointed questions about who did—and didn't—rake in their share of the online blitz.

Some didn't even make it to Christmas eve: CookExpress.com, which didn't get enough business for its gourmet-food-delivery service and said on Dec. 23 that it will suspend operations. Cook Express Inc. says it is reviewing its options and may reemerge—if investors go along. Then on Dec. 29, Value America Inc., which specializes in consumer-electronics gear, announced that despite massive spending on print ads, quarterly revenue would fall as much as 9% below projections. It's laying off 47% of its staff and cutting back offerings to a few promising categories. Expect more casualties by the time fourth-quarter earnings are tallied. "There's going to be 50 to 100 companies that will hit a wall," says Steve Westly, vice-president for marketing and business development at eBay Inc.

So, after helping lead Nasdaq exchange to rec highs, e-tail startups are le ing the retreat. By Jan. 5 commerce shares had plun 35% from December highs, cording to Thomas Wei Partners. Weaker private co panies, meantime, will funding dry up, forcing th to go out of business or see buyer, say analysts and v ture capitalists.

The most likely victims? supplies, gifts, and beau products, all crowded ca gories, are ripe for a sha out. The most brutal pari though, will come in the ho contested toys and consum electronics markets, says A Ellison, managing director at Broadvi International LLC, a mergers-and-acq sitions investment bank. Roxy.com I an electronics site that is 40% owned Federated Department Stores Inc., sa it's already on the lookout for ca strapped dot.coms to acquire.

BATTLE STATIONS. Another way to se arate winners from losers is to che the traffic reports compiled by out such as Nielsen//NetRatings and Me Metrix. These stats show that desp an estimated $1.7 billion of advertisi thrown around by Web startups, tra tional bricks-and-mortar brands, su as Best Buy and Toys 'R' Us Inc., bro through online. Their sites make nearly half of the names of the 50 m popular sites compiled by Media Metr MotherNature.com Inc., an e-tailer th spent an estimated $15 million in four quarter marketing, didn't make the li

These results will only encourage t big brands to throw more money in Web sales—and make life even harc for Amazon.com wannabes. "Year 20

HOW EGGHEAD BOUNCED BACK

In TV and on the Net, ratings rule. While some dot.coms got creamed when December Net traffic ratings came out, e-tailer Egghead.com shares rose like a soufflé, jumping 64% on Dec. 29-30, to 19, after Media Metrix said it had become a top Top 10 e-commerce site, thanks to a 42% jump in visitors just before Christmas.

It was a sweet moment for Egghead CEO Jerry Kaplan, who had presided over one of Silicon Valley's most notorious flameouts, GO Corp. Kaplan took the title of Egghead CEO when he merged the troubled software vendor with Onsale Inc., his auction site that faced tough rivals, including Buy.com.

KAPLAN

How did Kaplan snag so much traffic? By heavily marketing the Egghead brand and keeping the site clicking. Still, profits remain elusive: In the third quarter, Onsale lost $16.2 million and Egghead lost $7.7 million on combined sales of $136.7 million. Says Pacific Crest Securities analyst Steve Weinstein: "The question is what other opportunities they can get into."

Kaplan says he plans to push copiers, cell phones, and other gear for small-business customers. Plus, he'll provide product information to attract more advertising and partnership deals—which now account for almost half of gross profits. Even though net profits are at least two years away, Kaplan's plan is apparently enough to egg investors on.

By Robert D. Hof in San Mateo

shaping up to be a major battle be-
een the offline retailer and the pure
t.coms," says Jim Breyer, managing
rtner at Accel Partners, a Silicon Val-
y venture-capital firm.

As the year unfolds, dot.coms will re-
w their gaffes and rethink strategies.
e thing seems clear: Massive spend-
g on traditional media did not create in-
nt household names. Already, startup
geltips.com dropped its ad from the
eatest marketing event of them all: the Super Bowl. Now, dot.coms are more likely to seek less pricey alternatives to tap consumers, including direct e-mail or co-branding with other sites or retailers. But some companies won't live long enough to make these efforts pay off. Warns Dick Byrne of ad firm Hanft Byrne Raboy & Partners Inc.: "Branding and loyalty don't happen overnight."

And more companies will focus on the basics—like distribution and customer service, which helped keep Amazon.com on top. But even mighty Amazon did not escape the Christmas hangover. On Jan. 5, the company's shares plunged 15% after it disclosed that its fourth-quarter sales will come in below some analysts' expectations despite tripling its ad budgets and that losses would widen because of higher inventory costs. Next victim?

By Heather Green in New York and Catherine Yang in Washington, with Paul Judge in Boston

COMMENTARY

By Andy Reinhardt

NO NET TAXES: A BREAK FOR THE WELL-OFF

At this point, it's safe to say that America has embraced online retailing. Cybershoppers snapped up some $10.5 billion in goods in November and December alone, according to Boston Consulting Group Inc. and researcher shop. org. That's only 2% of all U. S. retail sales. But at this rate, online sales could top $144 billion in 2003, says Forrester Research Inc.

E-commerce is no passing fad: It is stealing significant business from bricks-and-mortar stores and catalog merchandisers. But since most e-tailers don't collect sales taxes, that's not such good news for the coffers of state and local governments. Scott R. Mackey, chief economist for the National Conference of State Legislatures, figures e-commerce may have cost states close to $1 billion in lost revenues in 1999.

BAD POLICY. That's a blip in the $175 billion states collect each year in sales and excise taxes. And with state treasuries in surplus, there's no threat to public finances. But by 2003, the cut could be much deeper—as much as $14 billion, according to the Center on Budget & Policy Priorities, a Washington think tank. Yet many politicians, including Presidential candidates John McCain and Steve Forbes, continue to insist that the Net must remain tax-free to ensure continued growth. "We dare not smother this infant of progress in the cradle," said Forbes in a Nov. 10 statement.

The problem is that Net tax leniency, while it may help spread e-commerce more rapidly, is bad social policy. Why? Because the people who now shop on the Net come disproportionately from the upper rungs of the economic ladder—and are the least in need of a tax break. According to Forrester, online shoppers have household incomes averaging $56,320, vs. about $34,000 for the nation as a whole. For families that lack PCs and Net access, the figure is $22,940.

The implication is stark. Tax-free Net shopping benefits mostly well-off people and makes the already-regressive structure of sales taxes even more unbalanced. To compensate for the loss in tax receipts, which contribute about 40% of state revenues, governments may have to raise sales taxes. The burden would fall most heavily on people who don't shop online: The poorest 20% of Americans—those earning less than $25,700 per household—which already pay about 3.5% of their income in sales taxes. By contrast, the top 20% earners, who make $75,000 or more, pay just 1.3%. The more these upper-income shoppers buy at the virtual mall, the less they'll contribute to the cost of running public schools, hospitals, and police departments.

Advocates argue that collecting sales taxes on Net commerce could choke off its expansion, but the data are far from clear. A 1999 study by Austan D. Goolsbee of the University of Chicago business school calculates that taxing Net sales might reduce the number of e-shoppers by up to 24%. But while many surveys show that saving money is the No. 1 attraction for online buyers, recent Ernst & Young research finds that price ranks well below other factors, such as convenience and selection. Indeed, in a poll by CIO magazine released on Dec. 20, 71% of e-shoppers said they would buy the same amount even if they had to pay taxes.

SIMPLIFY. Most tax experts argue that the artificial inequity of a tax-free Net can't be allowed to continue. "Sales taxes should be levied the same online as they are on Main Street," says University of Tennessee economics professor William F. Fox. But forcing Net merchants to levy taxes won't address a more fundamental problem: the patchwork quilt of laws that make calculating and collecting sales taxes difficult for catalogers and e-tailers alike. That's why Fox, Goolsbee, and 112 other academics have called on Washington to lead a simplification of sales taxes—then ensure that they're applied equally to all commerce. That would ease the burden of compliance while leveling the playing field.

The Net tax holiday is industrial policy writ large. Some might even call it corporate welfare—this time for tiny startups with gigantic market capitalizations. But the Net Economy has enough traction that such a policy seems too generous a helping hand, especially when it's the poor who carry the load.

Reinhardt is deputy bureau chief of BUSINESS WEEK's San Mateo office.

DETROIT

DOWNSIZING THOSE MONSTER MACHINES

Carmakers plan leaner SUVs–just as gas prices bulk up

Even in Texas—where the bigger-is-better rule has long applied to trucks and fuel economy is usually an afterthought—consumers are starting to react to rising gasoline prices. At $1.27 a gallon on average, gas is 33% higher than a year ago. And, it seems, consumers are beginning to figure that the higher prices will stick: At Prestige Ford outside Dallas, the nation's leading seller of fullsize Ford pickups, F-150s with the smallest 4.2-liter V-6 engine and best fuel economy are now handily outselling trucks equipped with the brawnier 5.4-liter V-8, reversing previous sales patterns. Says Prestige owner Jerry Reynolds: "That's a gas mileage issue."

When the Lone Star state flinches, Detroit takes notice. After all, brisk sales of gas-guzzling pickups and sport-utility vehicles have produced the lion's share of Motown's record profits. And, with gas prices rising, analysts expect growth in sales of the biggest, most profitable SUVs, to start slowing. "Rising gas prices are a good reminder of the industry's mortality," says Merrill Lynch analyst John A. Casesa.

The first casualty: DaimlerChrysler's plans to build a gargantuan SUV called the Jeep Commander. In late December, DaimlerChrysler told suppliers it was scrapping the proposed sport-ute, BUSINESS WEEK has learned. Commander was to be built on the same chassis as the Dodge Ram fullsize pickup; but analysts and suppliers say higher fuel costs helped convince DaimlerChrysler that it would be better to focus on other, smaller models. The company won't comment.

If gas guzzling becomes passé, Detroit won't be totally unprepared. The Big Three have already been working on car-based SUV designs echoing the popular models that companies such as Toyota and Honda pioneered—mainly because they didn't have trucks to turn into SUVs. These relatively fuel-efficient vehicles, such as the Lexus RX 300, Toyota RAV4, and Honda CR-V, have caught on with U.S. consumers, and Detroit is ready to ride the trend.

Detroit's car-based SUVs will be much in evidence at the Detroit auto show, starting Jan. 9. The most eye-catching will be a raft of concept vehicles, including the Oldsmobile Profile and Jeep Varsity, stylish wagons designed to provide more room without the rough ride of big sport-utes. But there will also be other designs due to hit showrooms in the next several months. Ford Motor Co.'s Escape, a miniature Ford Explorer, is expected to debut in late spring. General Motors Corp. is unveiling the Pontiac Aztek, a flamboyant, car-based SUV aimed at Gen Y and slated to go on sale this summer. Chrysler's 1999 concept vehicle, the PT Cruiser, which echoes a 1940s gangster getaway car, arrives in showrooms this spring.

FED THREAT. Of course, not everyone is thinking small. On Jan. 10, Toyota Motor Co. will display its Sequoia, a fullsize SUV based on its Tundra pickup, and GM will unveil the Chevrolet Avalanche, a Suburban with a pickup bed. The added competition, along with new interest in car-based SUVs, should slow the growth of truck profits, but analysts reckon it would take a spike in gas prices, perhaps to $2 a gallon, to stop it.

Even if gas prices hold steady, Detroit's shift to more fuel-efficient autos also could come in handy if Congre follows through on threats of toughe federal fuel-economy mandates. Say David Garrity, auto analyst at Dresdne Kleinwort Benson Research: "If yo look at the success of crossover vehicle they can meet the regulations—and st push SUV sales."

Still, industry executives insist the wouldn't dream of letting the gover ment's Corporate Average Fuel Econ my (CAFE) rules dictate product desig "We tend to do the right things o product, and then get CAFE done la er," says James P. Holden, U.S. pres dent of DaimlerChrysle But if rising gas prices ar emerging truck-buying pa terns in Texas are any sig designing gas-sippers ar not guzzlers could prove t be the right thing to do.

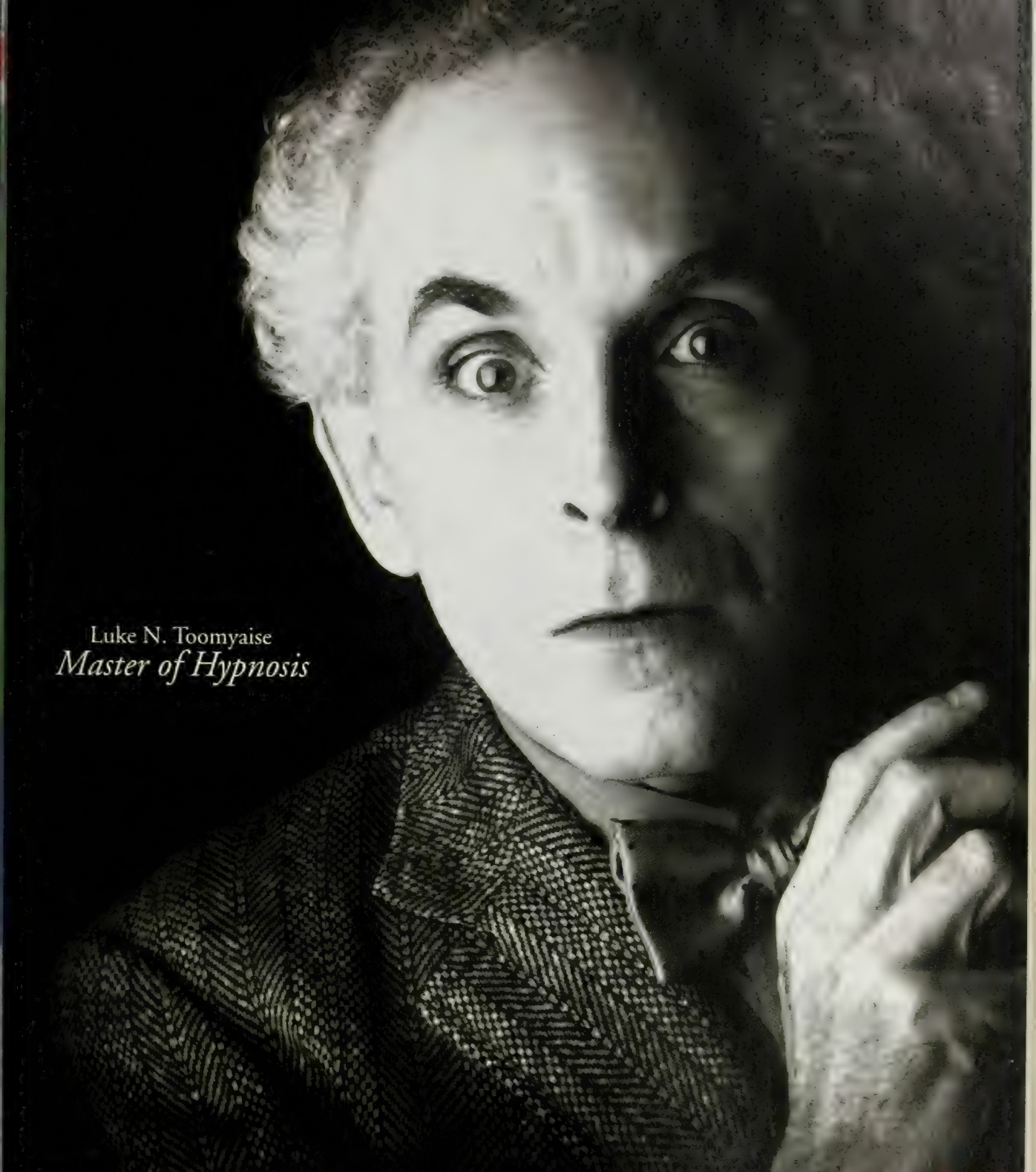
By David Welc in Detro

SMALLER, LESS THIRSTY

THE NEW ENTRIES	ESTIMATED FUEL ECONOMY MPG
FORD ESCAPE	24
CHRYSLER PT CRUISER	23
PONTIAC AZTEK	22

DETROIT'S GAS GUZZLERS	ESTIMATED FUEL ECONOMY MPG
FORD EXCURSION	14
CHEVROLET SUBURBAN (4WD)	15
DODGE DURANGO	15

DATA: EPA ESTIMATES, EPA



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CONSUMER ELECTRONICS

THE SOUL OF A NEW REFRIGERATOR

In Las Vegas, the shape of e-pliances to come

On Jan. 6, Scott G. McNealy was ready to unveil a technology breakthrough: During a speech at the Consumer Electronics Show in Las Vegas he planned to introduce the world's first Internet refrigerator.

No, Sun Microsystems Inc. isn't getting into the white goods business. Sun CEO McNealy wants to make a point by showing a $350 portable tablet from startup Qubit Technology slapped onto a Whirlpool refrigerator: Information Appliances will soon be everywhere in your home. With easy-to-use software, will make getting a movie schedule or stock report from the Net as simple as toasting a piece of bread.

McNealy argues that these convenient Internet appliances, always ready to answer a question, will take the Web to the millions who have no interest in using a PC, while making it easier for everyone else. And McNealy is in excellent company. Technology companies such as Microsoft, Intel, and Compaq are taking booth space at CES next to the consumer giants like Sony—all to get in on this market. They will be showing dozens of gizmos to make getting on the Net far simpler. "This year will be the first time to see real products that will lay the foundation for what's to come," says R. Kevin Hause, an analyst at researcher International Data Corp. By 2004, he predicts, sales of non-PC Internet devices will reach 11 million units.

ALL ABOARD. Also piling onto the appliance market are service providers, including telephone and cable companies, which want to stimulate demand for high-speed Net access. At the same time, publishers, financial services companies, and online retailers are doing what they can to bring forth a technology that will deliver millions more to their potential audiences.

The concept of the info appliance has been gestating for a decade. But it's now coming to life for a number of reasons. First, there are new technologies such as speedy broadband Net connections and home networks. A new device, a home gateway, will manage Net connections and provide "always on" service—meaning that a consumer never has to log on or boot up and can use all these devices on one Net connection.

But perhaps the biggest factor in making this the year of the info appliance is the need by technology leaders such as Microsoft, Intel, and the PC makers to find new markets. The conventional PC business faces slowing growth and plunging prices. Even Intel, which dominates the PC chip business and profits handsomely, is eager to find other markets with greater potential. On Jan. 5, it rolled out an elaborate strategy to sell and support non-PC Web appliances. Intel says it will deliver a family of screen phone-type devices—that use the Linux operating sy tem, rather than Windows—in mid-20 They will offer quick and easy access e-mail and the Web, as well as typi telephone features. "We can't afford n to participate in this business," sa Claude Leglise, general manager of I tel's Home Products Group.

The business model for this new li will be a departure for Intel, too. plans to sell its products telephone companies or cal operators that will distribu the gear to subscribers. Th means they'll be heavily sub dized by service revenues, perhaps even given away f free—the way cellular phon are when consumers commit service contracts.

RUDE AWAKENING. The ce phone model also appeals content providers and e-tailer Britain's Virgin Entertainme Group, for instance, will slap i brand on Web terminals ma by Boundless Technologies In and subsidize them in hopes generating more online mus sales. Likewise, America Onli Inc. and Hughes DirecTV a subsidizing a new set-top b that delivers AOL content to D recTV subscribers. The syste is expected to be demonstrat for the first time at CES ar will hit the market by midyea

What could hold up the in appliance market now? For starter telephone and cable companies could fa to make broadband widely available. consumers expect these machines to c everything a PC does, they could have rude awakening, says Calvin R. Ke ney, director of business developme for Acer America. Reliability also is in perative, since the entire premise of th info appliance is that it will run as d pendably as the telephone.

With the world's technology, conten and e-commerce giants sensing a pote tial bonanza, chances are these obstacl will be overcome. "Pieces of the puzz are coming together, but it will take few years for this to be a huge ec nomic success," says Joe Bassi, seni manager of business development f Sun's software products and platform group. But by then, one hopes, the Pos it notes now slapped on refrigerato could be replaced by an equally easy, more expensive, technology.

By Andy Reinhardt in San Mate and Steven V. Brull in Los Angele with Peter Burrows in San Mateo an Catherine Yang in Washington

DIAL "I" FOR INTERNET

Intel plans to offer access to the phone, e-mail, and the Web with the same device

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In Business This Week

EDITED BY MARK FRANKEL

IN THE MAIL: GM CAR COUPONS

WELL, IT WORKED BEFORE... General Motors announced on Jan. 4 that it would mail $500 coupons to millions of U.S. customers, a ploy it used successfully to induce sales in 1998. The next day, the auto industry announced that it had hit a new sales record—16.9 million cars and light trucks in 1999. But GM's sales of 5 million vehicles failed to break its 1978 record and left it with a disappointing 29% share—down from 35% in 1990. GM hopes the "loyalty coupons" will help get it back over 30%. Trouble is, three can play at this game. Two years ago, Ford and Chrysler responded with coupons of their own, and even accepted GM coupons at their dealerships.

CLOSING BELL

FOX KNOCKS COX

Did Fox put a pox on Cox? Shares in Cox Communications plunged 9%, to 44½, on Jan. 5 after Morgan Stanley Dean Witter cut Atlanta-based Cox to neutral from strong buy, citing the company's high valuation. The drop came just two days after Fox TV barred Cox systems, serving 400,000 homes in three states, from carrying its programs, including NFL football and *Ally McBeal*, because the cable operator won't carry two Fox specialty channels on its new digital systems.

DATA: BLOOMBERG FINANCIAL MARKETS

SAYONARA TO THE NET'S 'TOKYO JOE'?

THE SECURITIES & EXCHANGE Commission on Jan. 5 sued Yun Soo Oh Park—better known by his *nom du Web*, "Tokyo Joe"—charging that he defrauded investors who subscribed to his Web- and e-mail stockpicking alerts. The SEC alleges that Park would repeatedly buy shares in a company, recommend the stock to subscribers, then sell his own stock as the price rose. The complaint also charges Park "touted" the shares of cigar importer DCGR International Holdings, not revealing that the company gave him 100,000 shares. Park's attorney says he'll fight the charges.

CUSTOMIZING COMPAQ

FOR YEARS, COMPAQ COMPUTER has struggled to build the internal capability to match Dell Computer and Gateway's success at building personal computers to customers' specifications, with little luck. On Jan. 4, the PC giant decided to purchase the skills it lacks. The Houston computer maker agreed to pay $370 million in cash for the custom-assembly operations of distributor Inacom. The deal, which adds 2,500 employees to Compaq's rolls, also gives it the ability to track orders online.

TECHIES GET THEIR OWN NEWS RADIO

WILL RADIO LISTENERS TUNE in to technology news as readily as they do talk shows and traffic reports? CNET, which operates the Web's most popular technology news site, is betting that they will. On Jan. 3, it announced a deal with radio broadcaster AMFM to create all-tech radio shows featuring product reviews and interviews with industry leaders. It will start at one San Francisco station this month and roll out to the rest of AMFM's 440 stations later this year. Following an alliance with General Electric's NBC unit, it's CNET's latest bid to expand into other media.

HEADLINER: STEVE JOBS

APPLE'S CORE EMPLOYEE

Steven Jobs always manages to include blockbuster news in his annual keynote speech at the Macworld trade show. This year was no different. On Jan. 5, Jobs unveiled an ambitious Internet strategy calling for Apple Computer to provide e-mail, online greeting cards, and other services. He also announced that Apple sold a record 1.35 million units in the December quarter. At one point, Jobs was interrupted by teens chanting, "Steve rocks!"

That was just the warmup for the most crowd-pleasing news of all: Two-and-a-half years after returning to Apple as interim chief executive, Jobs finally made official what most people assumed long ago: He will stay on as full-time CEO. Jobs says his performance has quelled concerns that he could not run Apple and preside over Pixar Animation Studios, too. "I just thought it was time," says Jobs. "The reality is that I am CEO of Apple, so my title might as well reflect it." So will his pay—which will move up from the $1 annual salary he got as interim CEO.

By Peter Burrows in San Mateo

A CABLE REPRISE FOR US WEST

US WEST WILL ANNOUNCE A major effort to return to the cable-TV business within several weeks, sources say. The company, which spun off its MediaOne cable subsidiary in June, 1998, will soon offer a combination of cable TV, local phone service, and high-speed Internet access over upgraded digital phone lines in cities across its 14-state Western region. It first introduced t service last year in parts Phoenix, where it has sign 15,000 homes. The compa is said to be considering Se tle, Minneapolis, and oth cities for its expansion. T plan puts U S West in co petition with AT&T, which now buying MediaOne a rolling out similar servic over cable TV lines. U S We is expected to begin offeri the service in more marke later this year.

ET CETERA . . .

- The tough times at Disn mean CEO Michael Eisner w get no cash bonus for 1999
- AMD's new 800-MHz Athl chip evens the score with I tel's fastest offering.
- Carl Ware, Coca-Cola's t black exec, will become first global affairs chief.
- The Labor Dept. scrapp a notice extending OSHA sa ty regs to telecommuters.

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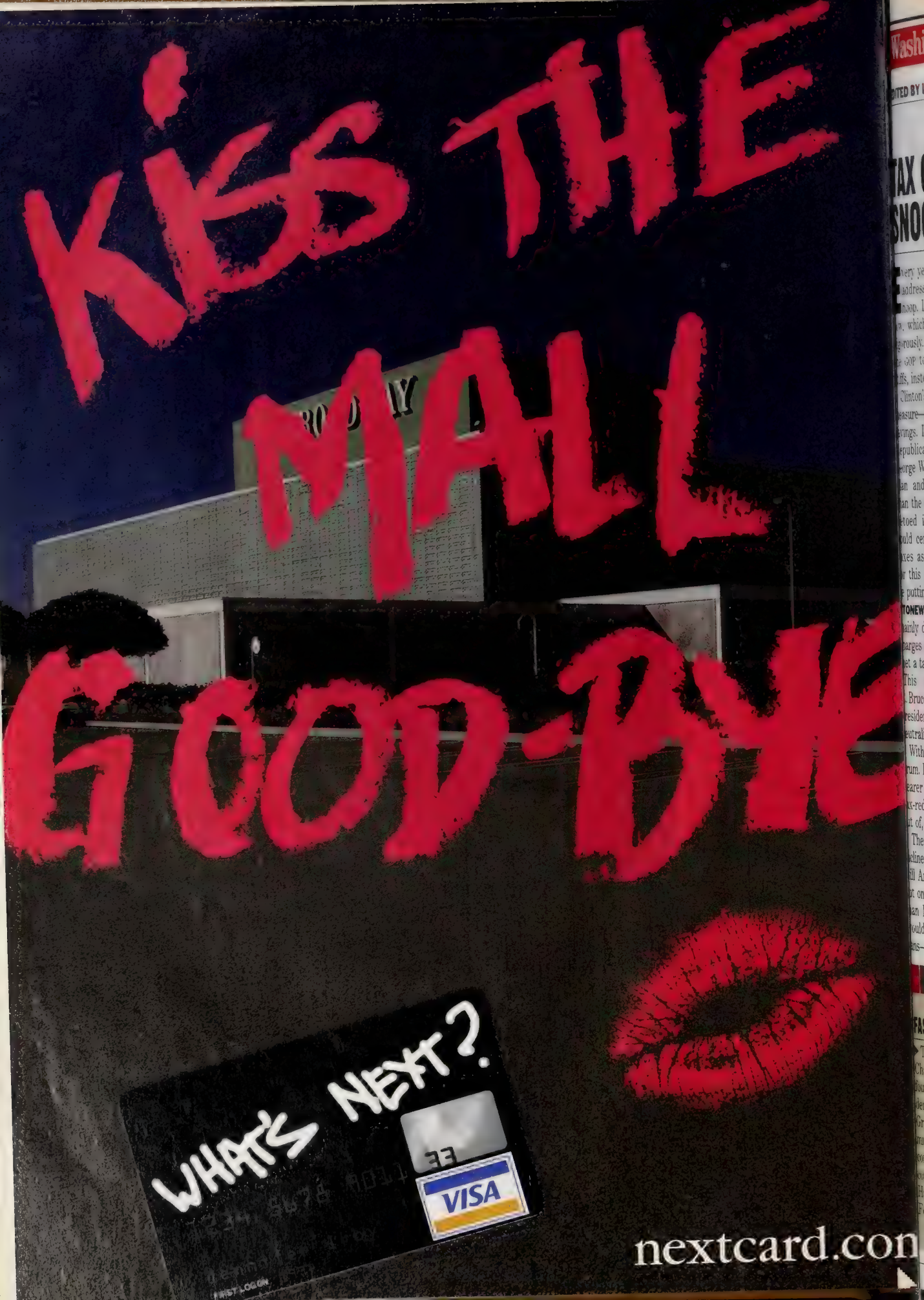
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DITED BY LEE WALCZAK

TAX CUTS: WILL CLINTON SNOOKER THE GOP—OR BURN THE DEMS?

very year, President Clinton uses his State of the Union address to goad the GOP into jumping through a new hoop. Last year, it was his "save Social Security first" w, which Republicans wound up endorsing even more gorously. Now Clinton has a new stunt: He is challenging e GOP to cut taxes—as long as relief goes to working iffs, instead of fat cats.

Clinton's probable proposal will be a $250 billion, 10-year easure—mainly tax breaks for health care, education, and vings. It falls far short of epublican front-runner eorge W. Bush's $1.4 trillion an and is much smaller an the $792 billion GOP bill toed in 1999. The Prez uld certainly have buried xes as a legislative issue this year, too, so why is putting them back in play?

ONEWALL? The move is ainly designed to blunt GOP arges that Democrats never et a tax cut that they liked. 'his is a game," says Bruce Josten, senior vice-esident of the U. S. Chamber of Commerce. The goal: "To utralize the other guys' issues."

With Clinton dangling a deal, Republicans face a conundrum. Do they stonewall, letting their Presidential standard-arer attack tax-and-spend Democrats while pitching a big x-reduction of his own? Or do they negotiate a preelection t of, say, $400 billion, a size Clinton might buy?

There are reasons why some Hill Republicans might be clined to deal. House Ways & Means Committee Chairman ll Archer (R-Tex.) is retiring and would love to notch a tax t on his belt. And aging Senate Finance Committee Chair-an Bill Roth (R-Del.) faces a tight reelection fight and uld like to show he still has some clout. Other Republi-ns—mindful of the party's slim House majority—might settle for half a loaf on taxes, if only to show home-state voters they can do something besides wrangle and hold impeachment hearings.

Conservatives will be inclined to ignore Clinton and try to pass another big bill, combining elements of their '99 effort with Bush's proposal. But hard-liners would have to swallow some of Bush's "compassionate" breaks for the working poor and forgo business goodies like a capital-gains cut. The resulting jockeying, Clintonites reckon, would again showcase Republican divisions and point up their soft spot for the country-club set.

If Republicans pass a megabill, Clinton would veto it. To some Bush strategists, that would be dandy. One says Bush would love to trumpet: "Vote Republican—and get a tax cut. Vote Democratic—and don't." But Hill Republicans would be on the defensive, with Clinton bashing them as reckless and the party faithful wondering why the GOP Congress had—yet again—broken a tax-cut promise.

There's a risk for Democrats, too. While tax cuts have had little allure in recent years, one targeted to the middle class could ignite voter interest. If it does, Democrats may find themselves trapped by Clinton's gambit and forced to compete with Republicans over a sizable bill.

That's why the fate of any deal will hinge on the state of the campaign come the fall. If Bush and congressional Republicans look solid, they may shelve the issue until 2001, preferring tax rhetoric to small-bore cuts. But if the election looks close, a deal with Clinton will look more enticing to Hill Republicans.

By Howard Gleckman, with Richard S. Dunham

CAPITAL WRAPUP

FAST AND SLOW AT THE FED

▸ The Senate is rushing to confirm Fed Chairman Alan Greenspan to a fourth four-year term. Within hours of President Clinton's Jan. 4 renomination of Greenspan, the Senate Banking Committee set hearings for Jan. 26. Senate confirmation is a certainty, though it could be delayed by populist Tom Harkin (D-Iowa), who has criticized the Fed's recent rate increases.

Clinton's other nominees aren't faring so well. After a yearlong search, the President nominated ex-Chase Manhattan Bank exec Carol J. Parry in August. Her nomination is unlikely to be acted upon before the elections because Republicans hope to name their own candidate. And the Senate has yet to reappoint Roger W. Ferguson as Fed governor. His term ends on Jan. 31, but he can remain vice-chairman until a new governor is named. Harkin's expected hold on Greenspan could produce a deal approving both Greenspan and Ferguson.

WAXMAN'S CHALLENGE

▸ Henry A. Waxman (D-Calif.) is laying the groundwork to challenge John D. Dingell (D-Mich.) for the chairmanship of the House Commerce Committee if the Dems retake the House. Dingell, Commerce's ranking Democrat, led the panel from 1981-95. But Hill sources say Waxman, Commerce's No. 2 Dem, is picking up support from colleagues irked at Dingell over gun control, clean air, and health reform.

Can the former KGB spymaster succeed where Yeltsin failed?

PUTIN'S I

Until a few months ago, he was virtually unknown even in his own Russia. Trained as a lawyer, he spent much of his working life as an economic spy in Germany, scooping up Western technology for the KGB, whose successor agency he eventually came to run. Now, at 47, Vladimir V. Putin has been catapulted into the Russian presidency by Boris N. Yeltsin's surprise resignation on Dec. 31. Unless he makes a horrible mistake, the former spymaster is almost certain to win a mandate to lead Russia for a four-year term when voters head to the polls for early elections on Mar. 26.

Will Putin's rise to power usher in a new era of stability in Russia? From Moscow to Washington to Tokyo, politicians and diplomats are debating whether Putin, who spent only four months as Prime Minister, will be his own man or a puppet of Yeltsin's entourage. Many note with alarm that Putin's first move as Acting President was to sign a decree immunizing Yeltsin from prosecution on any future corruption charges. "This is an attempt to consolidate an old regime," warns Moscow political scientist Boris Kagarlitsky. "Putin is a weak person with the image of a strong man."

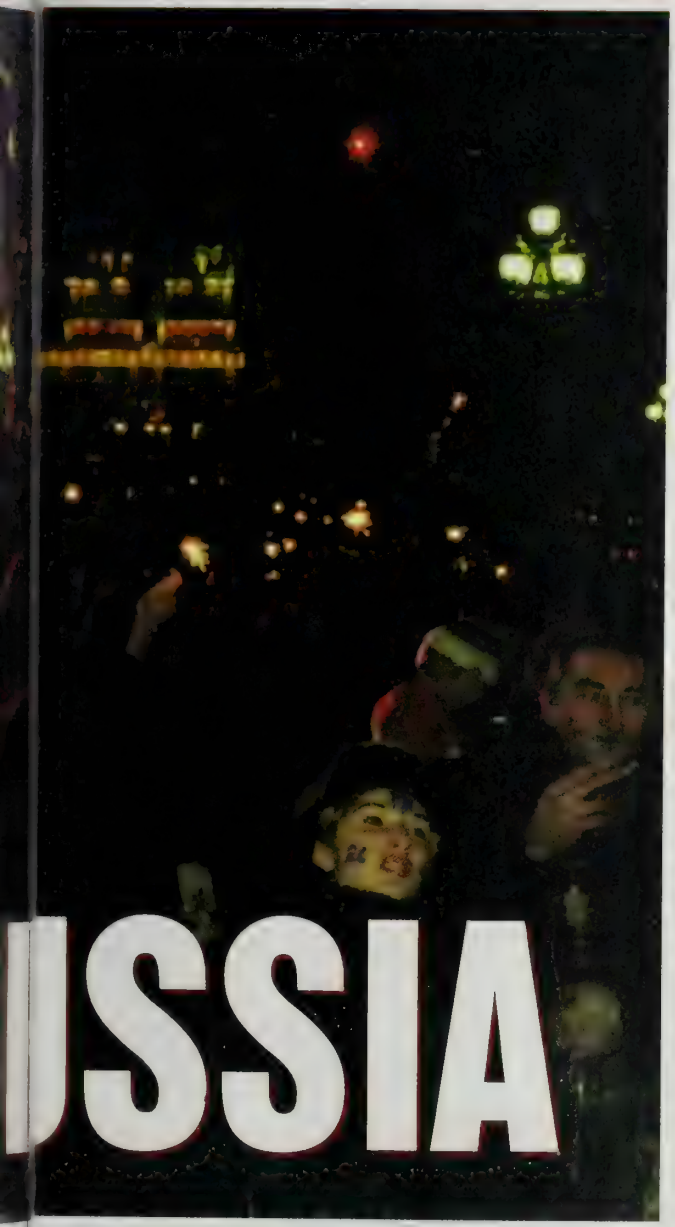
RADICAL REFORM, *NYET*. But Putin may surprise his doubters. Even if he has lacked a political base before, he now has supreme institutional power as President. Three days before his appointment, he put out a sweeping manifesto on the Internet outlining his vision. It will be a "long and difficult journey," he says, but Russia will regain its former status as a "great power." Don't expect Putin to import American or European models, and radical reform is out. He calls for a gradual program based on "a new Russian idea" that emphasizes patriotism, social protections, and a strong state. "For Russians, a strong state is not an anomaly," Putin says online. "Quite the contrary, [Russians] see it as a source and guarantor of order" and the "main driving force of any change."

But Putin's philosophy of a strong state does not hark back to the Soviet era of central planning. In his years as an economic spy in Germany, Putin came to understand that Russia can only be a great power if it is economically as well as militarily strong. Putin's KGB experience "drove home to him that the old command economy was like a dinosaur," says Michael Steiner, foreign policy adviser to German Chancellor Gerhard Schröder. "He knows that Russia needs a fully functioning, well-regulated, private-sector economy to thrive."

Both Mikhail Gorbachev and Yeltsin tried, but failed, to strengthen Russia's economy. Now, Putin seems determined to build a stronger central government in Moscow and use it to tackle Russia's problems. Putin is calling for an "active offensive" on crime, a stronger role for the judiciary, and a civil-service meritocracy. His advisers are looking into closing inefficient industrial enterprise and revamping the bankruptcy code New social programs would cushion th blow to workers.

Already, Putin has shown he's no afraid to use the power of the state He is using all-out force against rebel in Chechnya. And many fear tha Putin's Russia could be more authori tarian than either Yeltsin's or Gor bachev's. But so far, Putin claims tha he will abandon neither market eco nomics nor democracy—only "adapt them to the "realities of Russia.

It will likely be months before Rus sians learn the exact nature of Putin' program. Right now, his most impor tant aim is to win the election. A chie priority is avoiding heavy Russian ca sualties in Chechnya, where the rebels are putting up a tough fight. He als



IN MOSCOW

Voters like Putin's calls for patriotic support of the Chechen war

st decide how to deal with Yeltsin's mer entourage. Voters are disgusted h the way tycoons such as Boris rezovsky wielded power in the emlin. But Berezovsky and other so-led oligarchs have the money and media outlets that could swing the election. Putin simply may not be able to distance himself from the elite until after the vote. Some Russia watchers think Putin may then try to ease the oligarchs' grip by offering immunity in exchange for returning part of their ill-gotten assets.

But Putin may already be too compromised to make any such deals. After leaving the KGB in 1990, he went to work in the reformist local government in St. Petersburg. That's when he developed ties to Anatoly B. Chubais, later architect of Russia's much-criticized privatization program and now an adviser to Putin. Political opponents accused Putin of rigging privatization deals in favor of his buddies. Some sources predict that the only big change in Putin's Russia may be a reshuffling of the players, as a new crowd of Kremlin leeches replaces the old one.

Still, if Putin could take on the tycoons, his popularity among ordinary Russians would soar. Russians are fed up—with greedy oligarchs, Mafia gangs, and Chechen rebels. "People are thirsty for a strong leader," says Yuri Levada, a sociologist at Moscow's National Public Opinion Research Institute. "They are afraid of general disorder."

The worst disorder is in the economy. It's still a mess, even though gross domestic product grew 1.5% in 1999, the best performance since the Soviet Union's breakup in 1991. Higher oil prices are helping Russia. But thousands of Russian companies barely function. They don't have the cash to buy materials or pay their workers, and they stay afloat by barter. Millions of Russians survive by growing their own food and working in the black market, estimated at 40% of GDP. And Yeltsin's government failed to collect taxes efficiently, with disastrous effects on the country's health and education system. It's a vicious circle that won't be broken until Russia reforms its tax and bankruptcy laws.

TAX CUTS? Putin aims to use his "stronger state" to do that. For starters, he has charged a group of Western-minded liberal economists with crafting a new tax system. Putin wants to cut rates on businesses and individuals and simplify the Byzantine tax code. A likely target is the payroll tax, now a huge 40% of workers' wages. And while others before him have failed, Putin is likely to take a tougher line on tax cheats. About half of Russia's tax bill goes uncollected.

Another key plank in Putin's plan is a government-run "industrial policy." Putin thinks the way to get growth is to encourage state, private, and foreign investment in high-tech industries such as aerospace. But exporters to Russia should take note: If the Russian economy continues its recovery and the ruble strengthens, Putin may erect barriers to imports of such big-ticket items as cars and refrigerators. The new President also hopes to boost Russia's exports—not only of raw materials but of manu-

THE ACTING PRESIDENT'S AGENDA

	THE CHALLENGE	HIS PROPOSED SOLUTION
AXES	Russia collects no more than half of its taxes, leading to dire underfunding of state institutions.	Implement a sweeping tax reform that would cut payroll and other taxes.
CONOMIC FFICIENCY	Although the economy grew 1.5% in 1999, GDP was nearly halved in the 90's. Thousands of unprofitable enterprises are still operating.	Introduce an industrial policy that will encourage investment in high-tech and export-oriented industries.
NRULY EGIONS	War is raging in separatist Chechnya, while in other regions, regional governors defy Moscow by refusing to pay taxes.	Putin is using all-out force to battle Chechen rebels and vows to create a stronger central government.

factured goods, too. He'll create an agency that will offer exporters government guarantees for loans, and eventually push for Russian membership in the World Trade Organization.

So far, Russian businesspeople are reacting favorably to Putin. "He's the best choice of all available," says Alexei Krivenkov, co-founder of Port.Ru, a Russian-language Internet company based in New York and Moscow. "Give Putin the benefit of the doubt," adds Josef A. Bakaleynik, chief financial officer at Tyumen Oil Co. He hopes the new President will slash the bureaucracy, then raise bureaucrats' salaries—so they will ask for fewer bribes.

Still, it could take a generation for Russia to fix its economic problems. Putin seems to realize that. Even if Russia grows at 8% a year, he says, it will take the country 15 years to catch up to today's Portugal or Spain. Russia's per capita GDP of $1,800 is about one-sixth that of Portugal and one-eighth that of Spain. Its GDP of $190 billion is about one-fiftieth the size of the U. S.'s.

"ABSOLUTELY CYNICAL." The long road ahead may be one reason he is appealing to Russians' patriotism. For now, at least, the Chechen war is playing into his hands. Most Russians back the war. Indeed, the threat to the integrity of Russia from Chechnya is quite real. The current conflict began last August when Chechen-based rebels tried to declare an Islamic republic in next-door Dagestan. But if the war drags on, even patriotic Russians will grow weary. That's why Putin may in the end have to reach a political agreement with the Chechens. "I don't exclude the possibility that a President Putin will grant Chechnya independence," says Andrei Piontkovsky, director of the Moscow-based Center for Strategic Studies. "He is an absolutely cynical man."

Is Putin dangerous for the West? In the short term, probably not. But the longer term could be rockier, particularly if NATO angers Russia by inviting the Baltic states to become members. "Things are on a fine edge right now," says Robert Legvold, a Russia specialist at Columbia University. "You don't want to push the Russians too hard."

Russia has drifted and suffered under the rule of the aging and ailing Yeltsin. Now it has a young and healthy leader, and millions of Russians are relieved. But they will be watching closely to see if Vladimir Vladimirovich is a nation-builder, a dictator—or both.

By Paul Starobin in Moscow, with David Fairlamb in Frankfurt and Stan Crock in Washington

COMMENTARY

By Patricia Kranz

HOW YELTSIN BLEW RUSSIA'S BIG CHANCE

Boris N. Yeltsin is a lot like the country he ruled for most of the past decade. Like Russia, he's big, boisterous, and full of braggadocio. Most of all, he's unpredictable. Unexpected as it was, Yeltsin's resignation on the last day of the millennium was very much in character.

Unfortunately, so was his final act as President. By resigning, he speeds up the timetable for the next presidential election to Mar. 26 from June. And just three hours before he resigned, he approved a law requiring each candidate to collect the signatures of up to 1 million registered voters in less than six weeks to win a place on the ballot. The accelerated schedule makes it tough for anyone but Yeltsin's chosen successor and protégé, acting President Vladimir V. Putin, to get on the ballot or wage an effective campaign. Yeltsin wants to go down in history as the man who brought democracy and prosperity to Russia. But he has repeatedly tarnished his own legacy by skewing the rules in favor of insiders.

COMPROMISES

By skewing the rules in favor of insiders, Yeltsin tarnished his own legacy

BAD START. Yeltsin failed to create a genuine democracy, a genuine market economy, or an independent legal system. He undoubtedly started with good intentions. But at key junctures, he—or his advisers—chose to make ultimately damaging compromises in order to win the support of elites for their reforms.

The compromises started as tactical retreats. But they ended up sabotaging the entire system. In the early 1990s, Yeltsin aide Anatoly B. Chubais pushed through mass privatization by giving Soviet-era managers a controlling stake in the companies they ran. Freed from the oversight of ministers but unfettered by effective securities laws, many managers stole assets and ignored minority shareholders. Few companies were closed or restructured.

Most infamous were the "loans-for-shares" deals. Bankers close to the Kremlin gained control of Russia's biggest oil companies for a song. In turn, they bankrolled his 1996 reelection campaign and used their control of media companies to conceal his illness and tar his opponent.

True, Yeltsin took a risk by defying his advisers and deciding to hold the 1996 election even though he was unpopular. But his cronies manipulated the race through money and the media. Now, Yeltsin himself is manipulating the election for his successor. The earlier the better for Putin, whose popularity could wane if the war effort in Chechnya goes wrong. Putin may yet prove an effective president. But Yeltsin's machinations hardly make for an auspicious start.

Yeltsin deserves credit for crushing the totalitarian Soviet system. He gave Russians the freedom to speak out and travel. He allowed the other former Soviet republics to separate from Russia peacefully. But he squandered the goodwill of Russians and foreigners by creating a corrupt regime. The man who climbed on the tank in 1991 to face down Soviet power missed a historic opportunity to create a just and prosperous Russia.

Europe Editor Kranz has covered Russia since 1990.

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YEAR OF THE DEAL: *In '99, Esser went on a buying spree. This year, he is the prey*

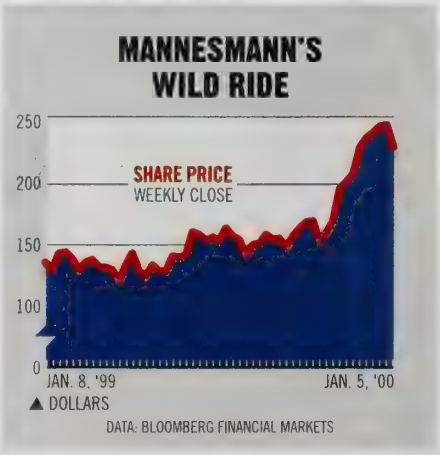
GERMANY

CAN MANNESMANN WRIGGLE AWAY?

CEO Esser may be poised to do a deal to foil Vodafone

The clock is ticking for Europe's most embattled CEO, Mannesmann boss Klaus Esser. He has just a few weeks left to repel a $134.5 billion hostile takeover bid by Vodafone AirTouch PLC. But Esser, fresh from his own $46 billion telecom takeover spree in 1999, may yet try one more big deal that could keep him independent or hike the price of a takeover to an even richer level. And that deal would involve another high-stakes player in Europe's telecom industry—Jean-Marie Messier, chief of French conglomerate Vivendi.

In a New Year's Eve interview in Mannesmann's darkened Düsseldorf headquarters, Esser disclosed that he has been talking with Messier and waxed eloquent about their shared strategic vision. Esser did not disclose what a deal would look like. But analysts and bankers say one scenario involves Mannesmann acquiring control of Cégétel, Vivendi's French telecom business. As part of this Grande Entente, Paris-based Vivendi would have a free hand in selling Mannesmann's phone subscribers an interne access service.



The result: the first Eu ropewide portal for the mobil Internet, a huge coup fo Messier. What about that pesk Vodafone bid for Mannesmann Well, landing Cégétel woul give Esser control of top mobil phone players in Europe's fou biggest economies. And such bold stroke might just convinc Mannesmann shareholders tha Esser has a strategic vision fo the Internet that far exceed anything Vodafone has, an that Mannesmann will create lot more wealth if it stays in dependent. "All Esser an Messier have to do is announc that they'll do a deal like this the Vodafone deal doesn't hap pen, and [Vodafone CEO Chris Gent is blown out of the wa ter," says an investment banke and top player in Europea telecoms.

CLOSE TIES. A Mannesmann Vivendi linkup would be a stun ning final act to Europe's bigges takeover drama yet. But in this play the script is being rewritten daily, an there's absolutely no guarantee tha Esser can pull this off. Both sides cer tainly sound willing. "Vivendi is ou closest ally," says the 52-year-old Esse "We've had similar strategic views o what could be done." Is a deal immi nent? "From today's perspective, no, says Esser, but he adds with a smile "in this industry, things sometimes hap pen in a week." Vivendi would not com ment. But Messier is also anxious t cut an agreement involving Cégéte soon, says a source close to him. Viven di, which is dogged by takeover rumor these days, has been unable to dislodg France Télécom as France's Interne power. A Continental deal would be major boost.

Fine and good. But talking is hardl the same as doing. And even if Esse pulled off the deal, Vodafone might jus up its bid. Messier may still be angry a Esser for his surprise bid for Orang PLC, the British cell phone operato Mannesmann acquired last fall. Ever some members of the Mannesmann camp say that such a linkup would b fiendishly complicated to pull off, giver the involved ownership structure o Cégétel. The bankers also say Esser i trying other deals.

But Esser is clearly contemplating some bold act before Vodafone's offe expires Feb. 7. Even Gent, alread

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blindsided once by Mannesmann's purchase of Orange, figures Esser is plotting something. "I suspect he will try to produce something in the Internet field," Gent says, talking by mobile phone from a cricket match in South Africa.

A last-minute deal would be very much in character for Esser. Bespectacled and thin, he doesn't look like a macho dealmaker. A Mannesmann lifer who studied law, Esser strikes outsiders as stiff and colorless. But over the past six years, Esser's storm of deals has transformed Mannesmann from a rust-belt pipemaker to a telecom highflier.

In July, 1996, for example, a group led by Mannesmann paid about $525 million for control of a fiber-optic network belonging to railroad Deutsche Bahn. At what now seems like a bargain price, the transaction made Mannesmann the leading competitor to Deutsche Telekom, in both fixed and mobile service. By 1998, Mannesmann already controlled the nation's biggest mobile phone service, known as D2. But Esser's success started to attract the predators. Mannesmann needed to get bigger fast to avoid becoming shark bait.

The opportunity came last January, when Olivetti CEO Roberto Colaninno called Esser, looking for help. To pull off his planned $33 billion takeover of Telecom Italia, he needed cash. He also faced antitrust problems if he kept mobile phone operator Omnitel after landing Telecom Italia. So Mannesmann paid Olivetti $7.8 billion to take control of Omnitel and its fixed-line affiliate, Infostrada.

But Britain was still a big hole in Mannesmann's map. To outsiders, Vodafone was the natural solution. The two became partners after Vodafone bought AirTouch in January and inherited stakes in Cégétel's mobile network and D2. Vodafone didn't discourage speculation about a merger with Mannesmann.

But Esser regarded Vodafone as a threat because it already owned a stake in Germany's third-biggest mobile phone company, E-Plus. Vodafone couldn't own stakes in competitors D2 and E-Plus, Esser thought.

Rather than do a deal with Vodafone, Esser kept his eye on Vodafone's major British competitor, Orange. The only problem was that Orange's 45% shareholder, Hong Kong-based Hutchison Whampoa Ltd., didn't want to sell. But in October, Esser flew to Hong Kong and met with Li Ka-shing, the legendary business mogul who controls Hutchison via his Cheung Kong (Holdings) Ltd. Esser convinced Li he could make more money as a Mannesmann shareholder, a banker close to Mannesmann says. Li accepted an offer of $8 billion in stock, cash, and assumed debt. "A lot of people were interested in us," says Canning Fok, Li's top aide. "Essen gave us the best proposition."

Vodafone's shocked executives suddenly realized Mannesmann was their biggest competitor. Vodafone had little choice but to respond with a takeover bid.

Esser says he knew the risks. Orange was simply the best partner, he says. He also denies he deliberately paid a high price for Orange to fend off Vodafone. "We always felt we wouldn't keep anything as a poison pill," Esser says. An industry analyst finds that assertion implausible. "To pay a huge premium doesn't seem like the quickest way of maximizing the value of the shares," he scoffs. Mannesmann paid more than $6,000 per subscriber for Orange, some 70% above the industry average.

Mannesmann shareholders aren't complaining too much. Company shares rose 145% in 1999. Funny that Esser's reward could be to lose his job. Somehow, though, he doesn't look too worried: Maybe, just maybe, he has another deal up his sleeve.

By Jack Ewing in Dusseldorf and Stanley Reed in London, with bureau reports

FROM STEELMAKER TO TELECOM DYNAMO

JULY, 1996 Mannesmann leads consortium that pays $525 million for use of telecom network owned by German railroad Deutsche Bahn. Transaction makes Mannesmann biggest potential threat to monopoly Deutsche Telekom.

AUGUST, 1997 Mannesmann's mobile-phone service racks up 3 million customers, surpassing Deutsche Telekom's mobile service.

JANUARY, 1998 German telecom market opens fully to competition.

MAY, 1999 Mannesmann pays $1.2 billion for phone operator o.tel.o, as owners Veba and RWE bow out of the telecom business.

JUNE, 1999 Olivetti, raising cash for its takeover of Telecom Italia, sells majority stake in its own Italian telecom assets to Mannesmann for $7.8 billion.

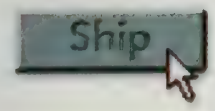
SEPTEMBER, 1999 Mannesmann announces plan to hive off telecom business from traditional engineering and automotive businesses.

OCTOBER, 1999 Mannesmann acquires British mobile-phone company Orange for $34 billion.

NOVEMBER, 1999 Vodafone AirTouch launches hostile bid for Mannesmann, which begins a major campaign in it own defense.

DATA: BUSINESS WEEK

SPLIT: *Despite Esser, shareholders may sell*



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ARGENTINA

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Companies are stampeding out, posing a problem for de la Rúa

"Love thy neighbor" is not an easy commandment to live by for Argentina. Brazil's abrupt devaluation a year ago rendered Argentine products comparatively more expensive both at home and abroad. Worse, the cost of doing business became far cheaper in Brazil than in Argentina, spurring some two dozen companies to jump the border. The effect was to drag Argentina into a deep recession that it still hasn't shaken. Meanwhile, the Brazilian economy is set to rebound nicely in 2000. Thank you, Brasília.

This double whammy of a cheaper Brazilian currency and a local recession is presenting Argentina's new president, Fernando de la Rúa, with one of his first big policy challenges. The 35% slide of the Brazilian real against the Argentine peso is luring one manufacturer after another north to Brazil. If de la Rúa cannot stop it, the corporate exodus could cut short any nascent recovery, boost 14% unemployment to even higher levels, and spark social unrest in Argentina's poorest provinces. Also, corporate flight will deal another blow to Mercosur, the trade group anchored by Brazil and an increasingly disgruntled Argentina.

GOOD COMPANY. The latest to pull up stakes is Delphi Automotive Systems Corp. The world's largest auto-parts maker announced on Dec. 27 that it would shut down a wiring plant in Argentina's Córdoba province. Delphi is in good company: At least 15 auto-parts companies have moved north to Brazil, taking with them 7,000 jobs—or one-fifth of the industry's total workforce. Meanwhile, General Motors Corp., Ford Motor Co., and Italy's Fiat are all shifting some of their production to Brazil.

The stampede isn't limited to the auto industry. Compañía Industrial de Conservas Alimentícias (CICA), a unit of Anglo-Dutch giant Unilever, will close a plant in Mendoza province at midyear and step up exports from facilities in Brazil and Chile to supply Argentina. The company had considered the possibility of shuttering the Mendoza factory before Brazil's devaluation, but the real's slide "accelerated our decision," says Miguel Angel González Abella, CICA's head of institutional relations.

De la Rúa said just before New Year's that he will do everything in his power to stop the exodus. So far, the President has offered to ease the burden on business through cuts in payroll taxes and a reduction in import tariffs on key industrial goods. That could slow the rush of companies out of Argentina, but it will compromise de la Rúa's efforts to curb a gaping $6.5 billion budget deficit.

The fastest way out would be a devaluation, but there is virtually no support for such a move in Argentina. Scrapping the peso's 1-to-1 peg to the U.S. greenback would devastate scores of Argentine companies with dollar debts and end the country's nine-year streak of single-digit inflation. "This is a problem that has no quick solution," says Abel Viglione, an economist with the Latin American Economic Research Foundation (FIEL), a Buenos Aires think tank.

Argentina is learning the hard way that when times are tough, companies will focus on the big markets. Brazil's population of 165 million is nearly five times that of its neighbor. That's one reason why auto makers, even while scaling back in Argentina, are plowing more money into Brazil. Fiat plans to invest $1.5 billion over the next three years to boost sales of small trucks in the country—its largest market outside Italy. DaimlerChrysler is spending $50 million to modernize a truck plant. Although its economy barely grew in 1999, Brazil received $29 billion in foreign direct investment last year, compared with just $6 billion for Argentina.

OVERNIGHT. One long-term answer to Argentina's quandary is a Mercosur single currency. All of the bloc's members, which include Paraguay and Uruguay, have endorsed the concept. Yet it is clear that the merco, as the common coin could be called, can't emerge overnight. It took Europe more than a decade to lay the groundwork for the debut of the euro last year. "A single currency can be achieved, but it will probably take at least six years," says Michel Alaby, a São Paulo economist.

Until then, expect lots of disagreement within Mercosur. Two-way trade between Brazil and Argentina fell by over 25%, to an estimated $10.6 billion in 1999, the first annual decrease since the bloc was launched in 1991. Argentina has hiked tariffs and imposed quotas on Brazilian goods, from steel to household appliances. Brazil has retaliated with its own protectionist measures. Beggar thy neighbor, not love thy neighbor, are the words that Mercosur's two leading partners live by nowadays.

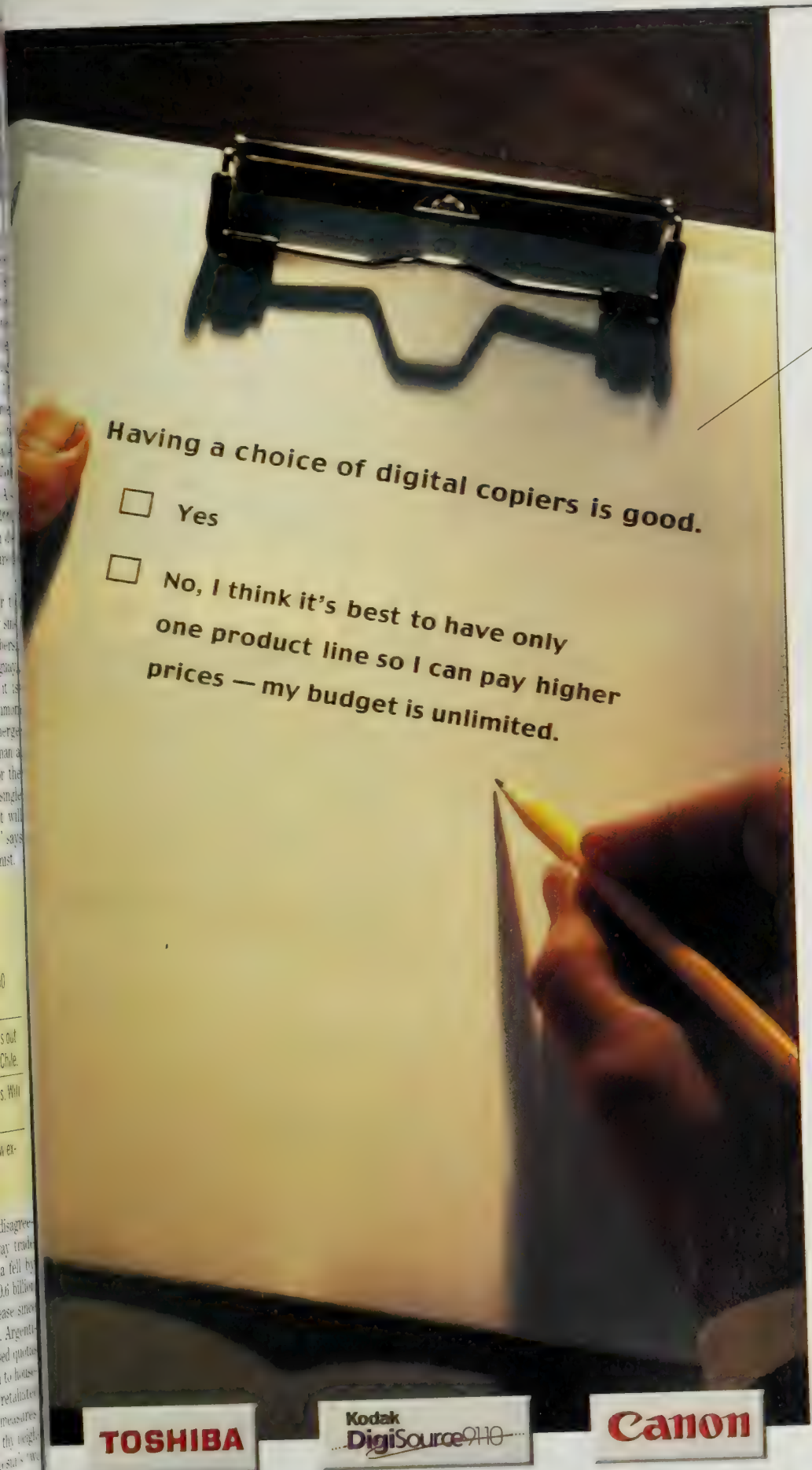
By Ian Katz in São Paulo

Corporate Exodus

Argentina's loss is Brazil's gain

DELPHI AUTOMOTIVE SYSTEMS	Closing down a wiring plant that employs about 400 workers and shifting production to Brazil.
CICA, A UNIT OF UNILEVER	Shuttering a tomato sauce plant, leaving 260 workers out of a job, and concentrating production in Brazil and Chile.
GOODYEAR TIRE & RUBBER	Retiring a tire factory, laying off about 900 workers. Will supply the market from its Brazilian operations.
TUPPERWARE	Closed a factory, laying off some 200 workers. Now exports to Argentina from its Brazilian factory.

DATA: BUSINESS WEEK



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DITED BY PATRICK SMITH

A TAIWAN CANDIDATE IAS BEIJING BARING ITS TEETH

With Taiwan's presidential elections set for Mar. 18, the contender Beijing warns it won't tolerate as successor to President Lee Teng-hui is navigating carefully. Chen ui-bian is a blunt-speaking pol best known for advocating dependence from China. But these days his TV ads feature o Gong, a legendary Song dynasty judge known for exeting corrupt officials during the 11th century. By shifting fos, Chen has climbed to first place in the polls and introced a dangerous new element to Beijing-Taipei relations.

With a third of the electorate still uncided, Chen is now backed by 20% of ters. That gives him a marginal lead er independent James Chu-Yul Soong—d a decisive jump on Lien Chan, the ckluster candidate of the ruling Kuointang. If Chen builds on this lead, tenons with Beijing are bound to increase. s the firebrand leader of the pro-indendence Democratic Progressive Party, hen inflamed Beijing even while he was ayor of Taipei in the mid-1990s.

CHEN: *Independence advocate*

So far, no one expects a preelection outrst similar to 1996, when China used issile tests in a bid to intimidate voters from electing Lee, ho also upset Beijing. Chen is now backpedaling on his rlier calls for a referendum on independence, but he still upolds Taiwan's right to decide its future. If Chen is elected resident, his views could trigger a crisis even without a refendum. Last summer, President Lee himself provoked an roar by calling for "state-to-state" talks with China.

In the past, the ruling KMT managed to keep Chen and his ebrand followers from acquiring too much power. In 1998, r example, Chen was narrowly defeated for reelection as ipei's mayor after the KMT fielded Ma Ying-jeou, a candidate ith strong clean-government credentials. Though Chen is oderating his rhetoric this time to avoid alienating skittish tizens, Beijing's watchful glare could give voters pause again. "People are cautious, and there is a lot of anxiety," says Andrew Yang, secretary-general of the independent, Taipei-based Chinese Council of Advanced Policy Studies.

That's why Chen must keep voters focused on his pledge to clean up government. "If money politics and corruption continue to be the main issue, then I think Chen can win," says Chiou I-jen, Chen's campaign director. Indeed, the KMT's increasingly soiled reputation has limited Lien's progress with voters despite his party's impressive resources. President Lee is locked in a slugfest with Soong over the latter's alleged mishandling of millions in party funds. A former KMT man who broke with the party last year when it refused to support his presidential aspirations, Soong had an early lead in the polls. Mainland-born Soong advocates talks to establish a formal agreement on relations with Beijing.

BIG STEP. Although an independent investigation cleared Soong of wrongdoing, his popularity has plummeted. But the scandalmongering has also tarnished the KMT. Speculation is rampant about the sources of Lien's apparently considerable wealth. And an investigation into KMT charges that Soong used party funds for vote-buying has implicated a key member of Lien's campaign. Lien pledges to place the KMT's business assets in trust if he's elected. But that won't erase popular perceptions of the party as corrupt and obsessed with its enemies.

A Chen victory would be an immense step for Taiwan—and not only because of his position on China. Although President Lee is Taiwan's first native-born leader, he is a KMT man nonetheless. A Chen presidency would mark the decisive end of 50 years of KMT rule and take Taiwan a big leap down the path to full democracy. The question is whether Taiwan's citizens are ready for such an uncertain new era.

By Sarah Davison in Taipei

GLOBAL WRAPUP

THE WAL-MART EFFECT

▶ Things are about to get even tougher for local German retail chains. Their market shares and profit margins have been eroding ever since U. S. giant Wal-Mart Stores Inc. moved into Germany back in 1997. On Jan. 3, Wal-Mart announced that it was slashing the prices of hundreds of goods by up to 20% in its 95 German outlets. To compete, local retailers such as Metro and Karstadt need to cut their own prices or lose yet more customers to their brash transatlantic rival. But German regulations prevent retailers from selling products below cost, so local companies can't simply declare a price war. "It's because we've improved the efficiency of our systems and the way we work with suppliers that we've been able to introduce these prices," says Ron Tiarks, president of Wal-Mart Germany. It's a tough act for the Germans to follow.

A MEXICAN MEDIA SALE

▶ Media giant Grupo Televisa's holding company, Grupo Televicentro, is looking to cash in on the booming Mexican stock market. Televicentro plans to raise $950 million by selling off a 9.1% Televisa stake this month and use the proceeds to pay down its debt. The sale will not dilute the Azcárraga family's holdings. Emilio Azcárraga Jean, Televisa's 31-year-old chairman, retains his 51% stake in Televicentro.

The Televisa offer would be the largest for a Mexican company in six years and cap a spectacular year for the Mexican market—up 88% in dollar terms—and for Televisa, whose shares soared to an all-time high before yearend.

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MARTHA
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Cover Story

INSIDE THE GROWING EMPIRE OF AMERICA'S LIFESTYLE QUEEN

martha inc.

It's a taping day at Martha Stewart's Westport (Conn.) studio, and the spotless halls are humming with activity. Helen Murphy, the new chief financial officer at Martha Stewart Living Omnimedia Inc., nervously gets ready to tape a presentation to investors. Crafts chief Hannah Milman fusses over terra-cotta-tinged ses for the new MarthasFlowers.com Web site, while Stew-t's 85-year-old mother, Martha Kostyra, waits to make date uares with her daughter. The scene is festive, if slightly Or-ellian. Permeating every part of the building is Stewart her-lf, chairman, CEO, and founder. Her husky voice rises from e speakers as dozens of screens show her juggling beanbags r her daily TV show.

It's a fitting image. Anyone who spends more than a few nutes with America's most famous homemaker learns that e is one heck of a juggler. On a recent day, Stewart, 58, se at her usual 5:30 a.m. to work out in Westport before zip-ng into Manhattan to prepare Greek food with a guest ef, meet with her magazine staff, share dessert with restau-teur Warner LeRoy for the TV show, make a cookie tree on etterman, and attend a party for her blisher—before jumping in her chauf-ur-driven Chevy Suburban for the 90-nute drive back to Connecticut.

BY DIANE BRADY

The dizzying routine seems to be working. Stewart's Web site racked up record Christmas sales, while her holiday TV special reached 7.8 million households. Recently, the former caterer pulled off her best party yet: a hot initial public offering on Oct. 19. Shares of Martha Stewart Living Omnimedia opened at $18 and quickly doubled, to about $36—as Stewart herself served brioches and freshly squeezed orange juice from a striped tent near the New York Stock Exchange. The stock price has since dropped to about $27, in part because of worries that the company relies too heavily on its driven founder. Even so, the offering made Stewart a billionaire on paper.

BLUE LIGHTS. Not bad, considering that Stewart's empire is still in its infancy. The domestic queen gained control of her crown jewel, *Martha Stewart Living* magazine, only in 1997. That's when she bought it for an estimated $75 million from Time Warner Inc., which launched it in 1991. Since then, Stewart has served up impressive gains on her modest base. In 1998, the company made $24 million, on revenues of $180 million—a 71% jump over 1997 net income. Sales for 1999 should exceed $225 million, and analysts expect her to near the $400 million mark by 2003. Last year, Kmart Corp. sold more than $1 billion worth of Martha

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Stewart Everyday products. Kmart's new BlueLight.com e-commerce venture with Yahoo! Inc., in which Stewart's company has a minority stake, could make those numbers grow.

But Stewart isn't ready to rest on her carefully cultivated laurels. The workaholic homemaker wants nothing less than to teach the masses how to create the good life, then sell them all the gear they'll need to do so. "Our market could be as big as everyone who has a house," Stewart asserts, knocking back a shot of vodka after taping a show at New York's Russian Tea Room.

Cover Story

While she is famed for esoteric tips such as how to make tinsel teardrops, Stewart's biggest lesson may be in how to build a true multimedia empire. Walk into any color-coordinated corner of Martha Inc., and it's clear that Stewart has turned the traditional business model on its head. She has created a brand that's equally at home—and equally recognizable—in a multitude of forms, from books to bedsheets. None of her rivals, from entrepreneur B. Smith to Meredith Corp.'s *Better Homes and Gardens*, has been able to match her reach.

So how has a woman who looks most at home wearing matching work gloves and galoshes pulled this off? For one thing, her view of her role is decidedly different from that of most media moguls. Stewart sees herself primarily as a purveyor of information rather than as a publisher or merchandiser. Her how-to advice, organized around a handful of core content areas, can show up as magazine articles, Web chat topics, or products on Kmart shelves—and preferably all three. Holding the enterprise together is a rising army of mini-Marthas, experts in their areas, who skate across different media and merchandising channels with the ease of their famous boss.

> The challenge is to ensure that Martha Stewart the brand can outlast Martha Stewart the person

But now, Stewart is facing her toughest challenge since building her business. She must ensure that Martha Stewart the brand can outlive Martha Stewart the person. For a woman who has spent her life pursuing both fame and perfection, stepping back won't be easy. Stories of her obsession with details abound. At CBS, set builders still recall her wrath when she discovered that they failed to follow her specifications for cabinet hardware in her TV kitchen. But with the roaring growth of recent years, Stewart can no longer oversee every detail herself.

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The problem goes beyond the usual management challenges of a maturing business. Stewart's smiling image dominates her TV show, magazine, and product packaging. If Martha Stewart Living is to outlast her, that has to change. While the company is now playing up other talent—and taking out massive insurance policies on its ubiquitous chief—Stewart remains the walking, talking personification of her brand. No wonder investors are worried about the fate of their stock if Stewart should, say, choke on a bad batch of buttercream. "That's a big risk," says Kevin R. Gruneich, an analyst at Bear Stearns & Co., who still likes the stock. Stewart herself is well aware of the problem and says the changes she's making will take her company to a new level. As she puts it: "We're just getting started."

LOYAL FANS. But my, what a start. Not counting the weekly "ask-Martha" newspaper column, her media properties reach 88 million people a month. Thanks to good demographics and extraordinary fan loyalty, they also command premium ad rates, according to the Publishers Information Bureau. Books and magazines still bring home the bacon, generating 65% of the company's sales, while TV and radio account for 12%. But merchandising royalties have risen to 10% of revenue, up from almost nothing a few years ago. The three-year-old Martha Stewart Everyday line of bedding, bath, paint, and garden supplies is also exploding as new items are introduced. Then there are the other retail deals, the catalog business, and a new kitchen-and-tableware line.

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What really has investors salivating, though, is Stewart's fledgling Web business. Organized around the core content areas, the site, with more than 1 million registered users, offers traditional how-to advice, chat rooms, and related merchandise. Internet and direct sales accounted for roughly 13% of revenues in 1999. This year, online sales should surpass catalog sales. Still, the Net remains a money-loser because o

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From Martha's Kitchen

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Martha By Mail
MarthasFlowers.com

SEARS/ CANADIAN TIRE

Paints

SPECIALTY RETAILERS

Fine paints, fabrics, crafts

avy investment in staff and site development. Also, critics it's thin on fresh content. But even detractors admit that rthaStewart.com is a hit with advertisers and consumers. It's a recipe that appeals to fund manager Zack Shafran of ddell & Reed Financial Inc. in Overland Park, Kan. He sa- rs the "real dot.com flavor" of her business, although he n't say how much he owns. Stewart is also getting key pport from Silicon Valley venture capitalists Kleiner, rkins, Caufield & Byers, which invested $25 million and holds a 5% stake. Partner L. John Doerr, who sits on Stewart's board, argues that the Web will finally let "Martha create the perfect, personalized how-to experience in a direct way with her audience." Besides helping to lure fans to the Web, Doerr's company could be critical in finding West Coast talent—cyber-Stewarts who can translate her vision online.

Even those who scoff at Stewart's perfect-housewife image admit that she's a stunningly savvy entrepreneur. Her company, which raised $149 million in its IPO, posted record sales

DESKMATES Company President Sharon Patrick shares office space with Stewart. "What Sharon does is chase the details and do the deals," says Time Inc. CEO Don Logan

of $49.8 million in the third quarter, although the investment in e-commerce shrank profits to $1.9 million, down from $4.7 million a year earlier. Stewart controls 60% of the shares and 96% of the votes. Company President Sharon Patrick owns 5%, and a further 12% is in the hands of hundreds of employees or "founders" who have worked for the company at least a year. Rewarding staff was, Stewart says, a primary motive in going public.

Foremost among those founders is Patrick, who along with Stewart sets the strategy for the empire. The duo met while climbing Mt. Kilimanjaro in 1993 and quickly became inseparable, plotting Martha Inc. as they scaled the final peak. "I admired her ability to put everything down in a clear business plan," says Stewart. While Stewart may have seen a synergistic domestic-arts empire as her destiny from the start, outsiders credit Patrick with helping to package the vision for investors and execute it. "She complements Martha's strengths," says Don Logan, chairman and CEO of Time Warner's Time Inc., who dealt with Patrick in the protracted negotiations to sell Stewart majority ownership of her magazine. "What Sharon does is chase the details and do the deals." Not that she's a Martha clone. One merchandising executive calls her "a wild woman, this whirlwind who talks in sentence fragments and is hell-bent on getting product on the shelf."

Cover Story

But Patrick, a former McKinsey & Co. consultant and Cablevision Systems Corp. executive, does share Stewart's vision for creating original, high-quality content that can cascade through various media, retail outlets, and cyberspace. They believe the result will be shared costs, cross-promotions, and ultimately higher revenues and earnings. "If you're committed to content instead of the vehicle, you can do so much more," says Patrick, excitedly flipping through charts from the company's recent pre-IPO road show.

The trick is translating that rhetoric into an actual business. Each of the core content areas that make up the Martha Stewart brand is managed by its own team. Each lead must be equal parts writer, product designer, and—increa ingly—TV personality. Margaret Roach, who joined as gard editor five years ago, points to a magazine article on Marth rose garden. Roach used that as the basis for a TV segme to help design garden tools for Kmart, and as how-to info mation on the Web. Like her boss, Roach thinks big, sayin "We want to change the way America gardens."

"NOT ABOUT ATTITUDE." Team Stewart also relies on an arm of marketers, designers, and other professionals who can ca ry their skills across the different media and merchandisi outlets. "The culture is pervasive," says Lauren Rich Fine, media analyst at Merrill Lynch & Co., who sees Stewar depth of talent as a key to her long-term success. Indee staffers are inculcated with a sense of both the brand and t customer. Stephen Drucker, editor-in-chief of *Martha Stewa Living* magazine, visualizes the typical reader as a supreme confident 40-year-old woman with a part-time job, a nice hous and a family in the suburbs. "One of the things about Mart is self-reliance," says Drucker. He says that you'll never find a ticles in the magazine about getting a man, dieting, or fixi your hair. "[Martha Stewart] doesn't remind you that you're pounds overweight." And like a starched schoolmarm, she h no time for urban sophistication or overly clever prose. "It's n about attitude," says Drucker. "It's about information."

Stewart believes the real key to capitalizing on that co

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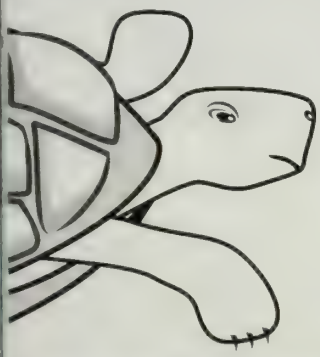

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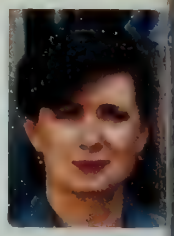
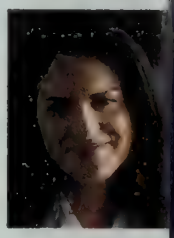


GAEL TOWEY, creative director, 47: This former publishing executive joined Stewart when the magazine was launched in 1990. She oversees creative content in all its forms.

STEPHEN DRUCKER, editor-in-chief, 46: A veteran of *Travel & Leisure* and *The New York Times*, Drucker oversees editorial content and has edited *Martha Stewart Living* magazine since 1997.



SUSAN SPUNGEN, food editor, 40: A former restaurant and food industry exec, this nine-year company veteran oversees all food and entertaining content.

MARGARET ROACH, garden editor, 45: Roach has been writing books and articles about gardening since 1985 and has worked full-time with Stewart since 1995. (For a profile, see the Jan. 17 issue online at www.businessweek.com.)

HANNAH MILMAN, crafts and holidays editor, 40: Before joining Stewart in 1991, Milman did style and product design for clients such as Donna Karan and Calvin Klein.

STEPHEN EARLE, style editor, 39: A former creative director at Polo Ralph Lauren, Earle oversees information on decorating and the care of everything from clothes to pets.

DARCY MILLER, weddings editor, 31: From her start as a Martha Stewart editorial assistant in 1992, Miller helped develop a Web site and new products, and she edits a quarterly magazine.

tent, though, is to own it. She realized from the start that Martha Stewart could live up to its Omnimedia potential only if it controlled every piece of information passing through its universe. She had long produced and owned rights to her TV show, broadcast specials, books, syndicated column, and radio spots, but Time Warner controlled the flagship *Martha Stewart Living* magazine. As a mere editor—albeit a highly paid one—she couldn't mine the magazine for content to repackage or leverage for cross-marketing deals. "They owned it, but they weren't interested in funding anything else," recalls Stewart, whose references to Time Warner seem tinged with "I told you so" bitterness. "Our whole business plan started with how to buy the magazine back."

Time insiders say that forays into merchandising and other areas simply weren't part of their plan for Martha Stewart. Logan says that the split was amicable and that he had long suspected Stewart might one day want control. "When we were originally discussing the idea, we assumed that could be one of the outcomes," says Logan, noting that Time Inc. now has a 5% stake in Stewart's company.

FLOOD OF MAGIC. What gave Stewart the capital to buy her independence was a new arrangement with Kmart, which guaranteed millions in royalties. She had joined the discounter in 1987 as a consultant, but the deal spawned only a few sheet patterns and intense frustration. "They were very Midwest," says Stewart, cringing at the memory. "This was Kmart. This was maroon and black and dark green. It was bad." In 1995, just as Stewart was broaching the idea of a buyback with Time Warner, the retailer brought in Floyd Hall as chairman and CEO. Hall met with Stewart days after coming on board to try to forge a new relationship. "The word for Martha is 'coordinate,' and a lot of our shoppers are looking for assistance in that area," says Hall.

Kmart wanted to flood key corners of its store with Martha Stewart magic, and it was willing to give her control over her product to do it. Instead of consulting on a few floral sheet patterns, Stewart's people could produce thousands of different products and get astounding play with Kmart shoppers. About 60% of the chain's bed and bath section, for example, is now devoted to the brand, with other parts of the store being converted as product comes out, according to Steve Ryman, vice-president for merchandise. He says Stewart's attention to details such as stitching and fabric weight have pushed up overall quality, but he notes that the chain still has final say over what hits its shelves. The store rejected sage green for the three-month-old Baby Baby line, preferring to stick with the standard pink, yellow, and blue. "The typical American doesn't go to Kmart to find avant-garde baby colors," says Ryma

Maybe not, but an awful lot of them go to find Mart Stewart-branded merchandise. On the strength of the Kma deal, Stewart was able to buy control of her magazine—a to concentrate on expanding her empire's reach. To do so, s has had to give staff members, who number in excess of 4 more leeway to dream up and execute ideas on their ow After all, they quickly learn her color palette and styl The veterans know what Martha would say on most subjec and how she would say it. Stewart splits her time betwe plotting strategy and keeping up her high-profile TV spo and guest appearances. She no longer reads every line copy before it appears in the magazine, but she still keeps close eye on her empire's operations through weekly sta meetings and doesn't hesitate to parachute in if necessar "If there's something really bad, I'll step in to fix it says Stewart. Recently, she nixed a "Peter Rabbit" ca that was set to appear in the magazine as "way too fanc

Cover Story

IR WIRELESS PHONES ARE EASY TO USE JUST BE CAREFUL WHERE YOU LEAVE THEM

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WE SEE THE BIG PICTURE.

DYNASTY IN THE MAKING? Stewart says daughter Alexis (below) is "getting warmer about coming to work with me full-time." Already, Stewart's 85-year-old mother, Martha Kostyra (right), cooks for the TV show

and asked staffers to come up with something simpler.

Think picky rather than perfectionist. While Stewart may revel in her image as the ultimate homemaker, she doesn't always look like a finishing-school ideal. Standing on the set of *The Early Show* on CBS, she'll take a spoonful of pumpkin bread pudding, pour on some rum sauce, and pop it straight into her mouth. If her assistant drops a fork while serving up barbecued turkey, she'll hand a guest the serving utensil to use instead of demanding new cutlery. She worries about her waistline and frets to her mother about eating several *pierogi* one night after work. She doesn't even have a place to stay in Manhattan because daughter Alexis Stewart and son-in-law John Cuti have crashed at her one-bedroom Fifth Avenue apartment for the past year while they renovate their own place—although Stewart could certainly afford a hotel room.

Cover Story

In many ways, the country-club image is undeserved. Stewart grew up one of six children in a Catholic family in New Jersey, modeling to pay her way through Barnard College before marrying, becoming a stockbroker at Monness, Williams & Sidel, and then a caterer. "What bothered Martha about the stock market was that there was an aspect she couldn't control, and that was stock prices," says former boss Andrew Monness. "She was a terrific businesswoman."

But the business of being Martha really began when Alan Mirken, former president of Crown Publishing Group, was so impressed by one of Stewart's catered parties in 1979 that he persuaded her to let his company publish her landmark *Entertaining* book three years later. The elaborate guide to good hostessing has since sold more than 500,000 copies and is now in its 30th printing. After attending her parties, Mirken is not surprised. "She created the most amazing ambience and food I'd ever seen," he says.

In 1989, he helped Stewart arrange a meeting with magazine titan S.I. Newhouse Jr., who helped her develop the prototype for an upscale how-to magazine but later abandoned the project because it didn't fit his group. Time Warner bought into the idea—but not without resistance. During one meeting, an executive leaned across the table to as "What if I find out on Page Six that you've run away with rock star with a bone through his nose?" The curt respon from Stewart, then fresh from a bitter divorce from book pu lisher Andy Stewart: "I don't have time for such silliness.

FAMILY AFFAIR. She has rarely had time or interest in an thing but the company, and indeed it's hard to tell where t person ends and the brand begins. She stages photo shoots her homes and claims actually to cut trees, repair deer fen ing, and do the other heavy chores listed in her month calendar. Her idea of relaxing is to come home and tackle project like taking the Chippendale legs off an antique stool make a new base for her 18th century Japanese lacqu trays. On vacation in Egypt, she took time out to visit fa tories that made fabric for her line. Her only child, Alexis, 3 who has started helping out informally on the product side MarthaStewart.com, admits to having been "vaguely irritate when her mother devoted a *Martha Stewart Weddings* ma azine column to her 1997 nuptials. Having grown up steepe in silk flowers and three-tiered *gâteaux à l'orange*, t younger Stewart kept the affair to a distinctly un-Martha-li five-person lunch. "I can't remember 10 seconds where Mo wasn't immersed in the business," says Alexis. Mom doesr see the problem and has a look of wistful excitement whe her daughter's name comes up. "I think she's getting warm about coming to work with me full-time," says Stewart, wl brushes off the notion that she's made any personal sacrific for the sake of her business.

Stewart has already brought in plenty of other fami members. Her mother cooks for the show, nephew Christ pher sings on holiday specials, and sister Laura writes rad

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scripts. But outsiders form the heart of her enterprise. She wooed Marc Morrone to be her expert on pet-keeping after seeing him work with animals on late-night cable TV. She worked long and hard to bring in the widely admired Helen Murphy, who had helped build the Polygram label and then take it public, as her new CFO. "I expected to walk in, roll up my sleeves, and dig for figures and facts," says Murphy. But, in true Martha Stewart style, even the balance sheet was crisp and clean.

Cover Story

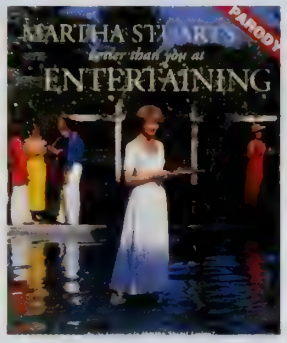
The next step is to give the company a life of its own. Stewart rarely appears on magazine covers anymore and is trying to groom some of her lieutenants as media personalities. She is even negotiating two TV shows this year that will not be hosted by her. But Stewart remains the lifeblood—the magic touch that forced Josefina Howard of New York's Rosa Mexicano restaurant to put marinated lamb shank in parchment paper on her menu because so many customers ordered it after seeing her prepare it on Stewart's show.

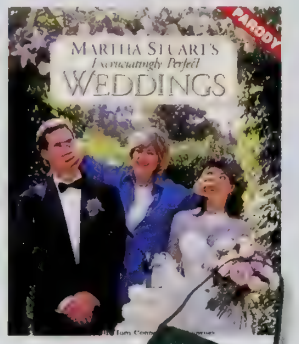
Despite her close identity with the brand, Stewart argues that her business can live on without her. "I have imbued this company with a tremendous amount of my spirit and my artistic philosophy," she says. "So much that emerg here now is a combination of that and other people's c ativity." Not everyone agrees. Clay S. Timon, chairman a CEO of brand consultancy Landor Associates, says th Martha Stewart Living has already become a truly ma market brand. He describes it as "very middle-America with a slight aspiration—not to reach Rodeo Drive, but live life a little better." Can it survive without her? "Mayb he says, "but not yet."

In any case, Stewart certainly has the means to start li ing life a little better herself. She earned about $5 million pay and bonuses from her company in 1998 and is guara teed at least $1.2 million this year. With stock that's n worth almost $1 billion, she can also afford a place in Ma hattan that's big enough to house her cherished cats a dogs—and even her daughter, if need be. She'll still have fi other houses: two in Westport, two in East Hampton, N. and her favorite retreat—in Seal Harbor, Me. With this activity in the home office, though, the windswept ic of country chic is planning to move to New York City fu time. Despite her massive net worth and a booming bu ness, she'll no doubt arrive with her garnishing kit a glue gun in tow.

A Picture-Perfect Target

Building an empire on gilded acorns and perfect pasta is bound to generate smirks. But few have smiled through as much sarcasm and sniping as Martha Stewart. She has been roasted as much as a field of free-range chickens. When not being skewered as a humorless, hard-driving tycoon, she's lampooned for her impossibly complex home crafts.





SKEWERED WITH SARCASM
Stewart's over-meticulous persona has given rise to no end of parodies

Her penchant for perfectionism makes Stewart an irresistible target for parody. A boggling array of books, sketches, and products play off the uptight homemaker image. Nash Co. in St. Paul, Minn., for example, sells a line of aprons and other products that carry messages like "Martha Stewart doesn't knead my dough." The Net contains such catty gems as the holiday calendar that had her bear a son and lay him in a potpourri-scented manger. Even talk-show host and fan David Letterman has lists like "10 ways to tell if Martha Stewart is stalking your dog" (No. 1: The dog droppings in your backyard have been sculpted into swans).

"SO SERIOUS." Many brands, of course, suffer backlashes, but most don't have as convenient a human target as Stewart. "She's so serious," says San Francisco branding consultant David Aaker, who thinks spoofs hurt the brand. Her name has become synonymous with a kind of unattainable—and slightly ridiculous—standard in the domestic arts, thanks to projects designed to take hours, if not days, to complete. Tyler Brule, founder of *wallpaper*, a London magazine, calls it "homemaker porn... projecting into a world you can't have."

Stewart takes the joking in stride. "It probably just makes me more human," she says. Stewart has even been known to take part in parodies of herself, like an American Express Co. commercial a few years back in which she tiled a pool with old credit cards. But she insists that she's selling useful how-to information and not an escapist fantasy for harried housewives. Tom Connor, co-author of three parody books, including *Is Martha Stuart Living?*, says elevating mundane chores to high art is a joke in itself. "The first time I opened her magazine, I started laughing because it was so over-the-top," says Connor, who featured Stewart making condoms from fresh-killed sheep. Stewart's laughing, too: all the way to the bank.

By Diane Brady in Westport, Conn.

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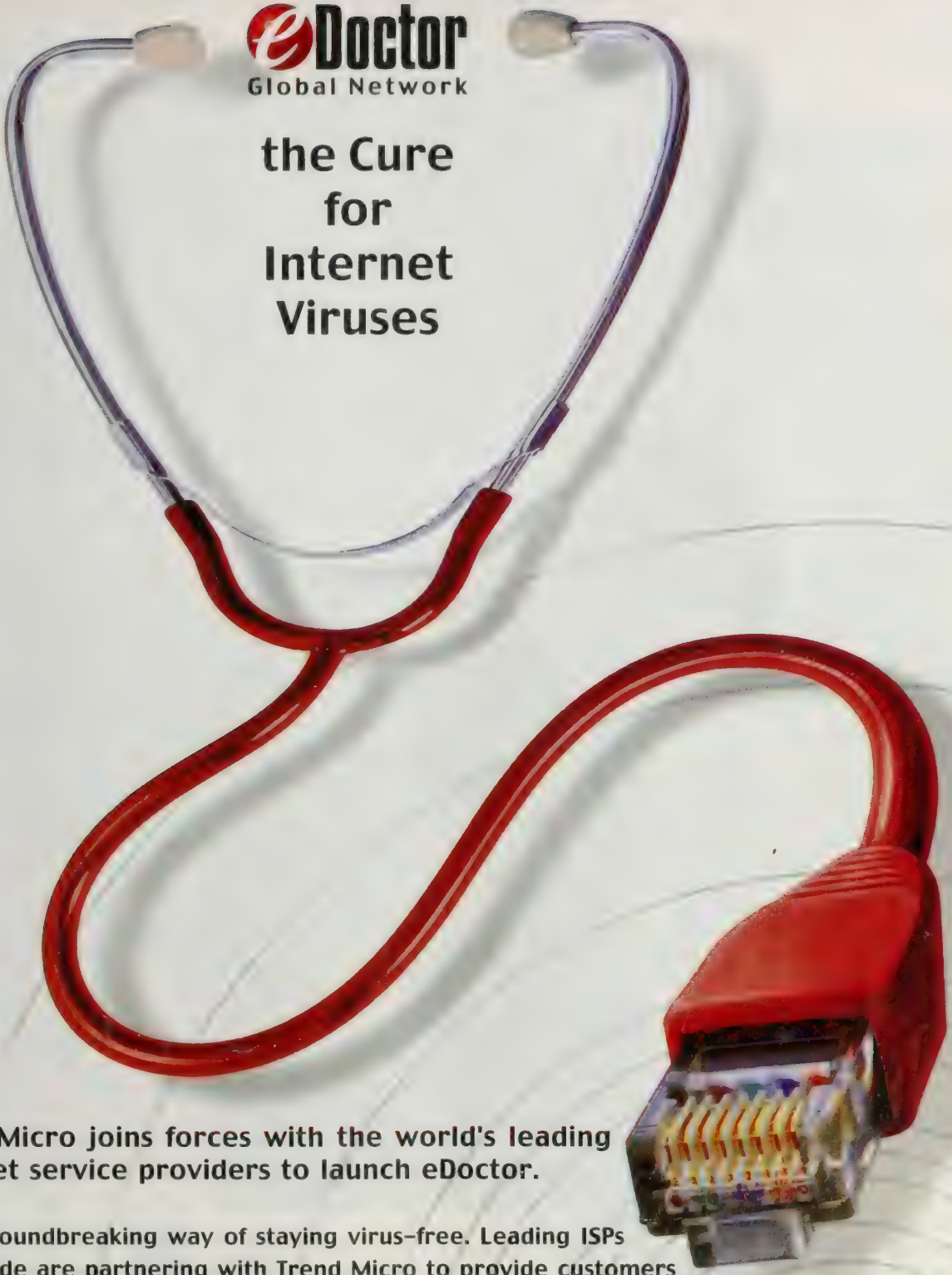
Global Network

the Cure for Internet Viruses



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STRATEGIES

UNIVISION PEERS INTO CYBERSPACE

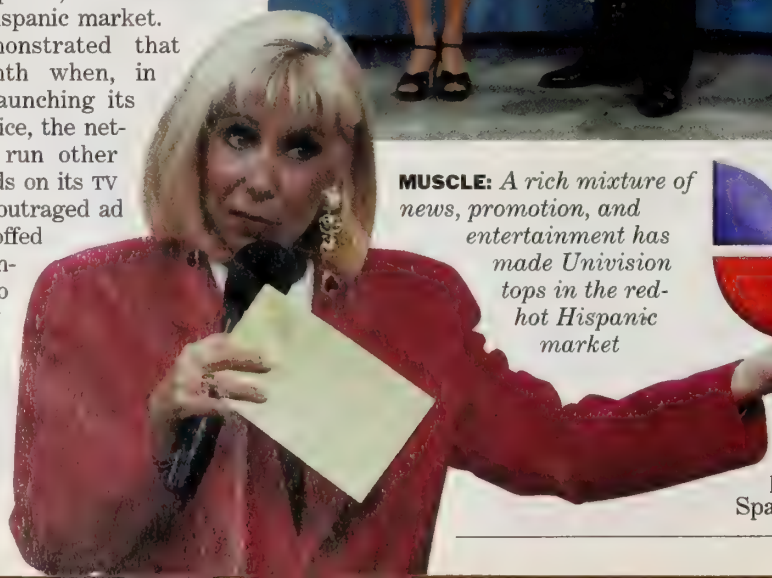
Can the Hispanic TV giant transfer its clout to the Web?

It's part Ed Sullivan, part infomercial. TV host Don Francisco leads a bleacher full of audience members through *Feliz Navidad*—then yields the stage to models in low-cut dresses, who sing the praises of sponsor Allstate Insurance. Moments later, a mother's tear-filled story about estrangement from her daughter is interrupted by another model extolling Exxon Mobil Corp.

With its unabashed blend of entertainment, drama, and promotion, *Sábado Gigante*, or "Giant Saturday," is a staple of weekend viewing for as many as 2 million Spanish-speaking homes in the U.S. each week. Along with soap-opera "telenovellas," movies, and news, it provides the programming backbone for Univision Communications Inc., a string of mostly UHF stations and cable outlets that is the nation's fastest-growing and most profitable broadcast company. With 91% of the blazing U.S. Hispanic market—more Spanish-speaking viewers than the four major networks combined—Univision isn't shy about throwing its weight around. "They can pretty much do what they want. They have that much clout," marvels James McNamara, president and CEO of Telemundo Network Group LLC, a distant No. 2 with 9% of the Hispanic market.

Univision demonstrated that muscle last month when, in preparation for launching its own Internet service, the network refused to run other Web companies' ads on its TV shows. The move outraged ad executives who scoffed at Univision's clumsy attempt to leverage its TV brand.

But Univision will hardly miss the Web-ad revenues. It's adding lots of younger TV viewers while the big networks are losing them. That has helped it sell $425 million worth of ads for this season's programs—42% more than last year, and more than triple the growth rate of the big networks. Univision's 1999 operating earnings should rise by 50%, to $197.2 million, on 16% higher sales of $671 million, estimates analyst Niraj A. Gupta of Schroder & Co.



MUSCLE: *A rich mixture of news, promotion, and entertainment has made Univision tops in the red-hot Hispanic market*

Investors responded by nearly trip Univision's stock price in the past y to about 100.

CEO A. Jerrold Perenchio bought trol of Univision in 1992 from Hallm Cards Inc. for $550 million, and qui rebuilt it to tap into the booming panic market. Total spending by U Hispanics, estimated at $411 billion year, is expected to grow 30% in next 10 years. Perenchio, 69, who owns 22% of Univision's shares, ram up programming, producing a Spar version of *Sesame Street* and beefing news and sports. His team of new ex inked long-term deals with Mexican dia giant Televisa and Venezuela's Ven sion to give Univision three hours a ni of their tear-jerking novellas. To k teens tuned in, they added youth-orien soaps. Says Merrill Lynch analyst Jess Reif Cohen: "They listen to their audie better than any network around."

At the same time, Telemun share slid dramatically, from 4 of the market in the early '9 The network, purchased in 19 by Sony Corp. and AT&T's Libe Media Group, flopped with su missteps as Spanish knockoffs *Starsky and Hutch* and *Charl Angels*. Only recently has Te mundo regained its footing—mo ly by reemphasizing novellas.

"COERCION?" Some advertis say Univision isn't shy abo strong-arming them to increa their buys. "It borders on co cion," says Gregorio Benne president and creative direct of Hispanic marketing agen Luna Bacardi Group in San Monica, Calif. Bennett, who agency plans Spanish-langua marketing and promotional ca paigns for such clients as Pil bury, Land O' Lakes, and C lumbia TriStar Pictures, says refused Univision's demands th his agency spend 85% of its bu get with the network. Aft meeting with top Univision e ecutives, he agreed pay them 60% of h overall budget. Pere chio is notoriously pres shy and refused to interviewed for this st ry. Univision executiv would not comment their ad policies.

Will that market musc translate to the Net? Informe sources say that in March the co pany will launch Univision Online, Spanish-language Web portal that w

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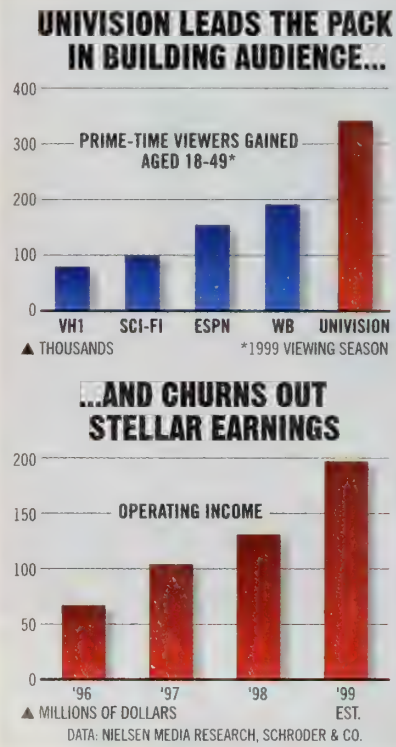
include sports, news, and entertainment, along with a link to a shopping site backed by Home Shopping Network, which airs a show on Univision's Galavision cable channel. Univision Online also will offer free computers to those who buy long-term subscriptions.

Univision apparently hopes to leverage its TV dominance—and stars—to entice Hispanic users onto the Web. So far, only about 7 million of the 32 million Spanish speakers in the U.S. are online, says Internet consultant Jupiter Communications Inc. Still, Univision is starting late. Star Media Networks, the largest Spanish-language Net-access provider in Latin America and in the U.S., has powerful equity partners in NBC Inc. and Hearst Corp. In the last two years, it has spent more than $100 million on marketing the StarMedia.com sites and captured 1.2 million page views in the third quarter, up 71% over a year earlier. In November, News Corp., Comcast Corp., and others sank $67 million into Yupi.com, a network of Spanish-language sites. And Telemundo is a partner in Quepasa.com Inc., which is also backed by Fox Entertainment Group. Says Betsy Scolnick, Star Media's senior vice-president for business development: "It's going to take a lot for Univision to make an impact in this space."



Still, the company has shown a keen ability to lock up audiences. And while Univision may be late to the party, competitors would be ill-advised to write it off. They may soon be facing a new Gigante on the Web.

By Ronald Grover in Los Angeles

Government

IN LINE, NOT ONLINE: *Waiting to apply for visas in Los Angeles*

THE INTERNET

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Why online government services are about to explode

Ask any driver: The worst traffic backups aren't on the highway, they're in motor vehicle department queues. Wouldn't it be great if you could register a car or get new license plates with your home computer, day or night? For millions of motorists, that's no fantasy. In Alabama, Alaska, Arizona, Michigan, and other states, such services are just a few mouse clicks away.

Welcome to the e-government era. After a slow start, public agencies at all levels are putting a growing array of services online. Over the next decade, local, state, and federal agencies could save millions on staffing and mailing as taxpayers reap the benefits of more convenient services.

Of course, with half the U.S. population lacking access to the Internet, "virtual government" will remain limited for the time being. And there are downsides: Proliferation of e-gov services will exacerbate the digital divide between technology haves and have-nots.

Still, in the long run, even the economy could benefit. As the cost of delivering services declines, government might be better able to hold the line on tax increases despite population growth. "There's no question this can make delivery of services more efficient, so there will be savings," says Patrick McGinnis, CEO of the Washington-based Council on Excellence in Government.

Already, Georgians can purchase hunting, fishing, and boating licenses via the Net. Maryland professionals can renew their licenses by computer. Many North Carolina lawyers can file briefs electronically. And college kids can apply for financial aid via an Education Department Web site.

Online voting could be next. On Dec. 17, President Clinton ordered the Nations

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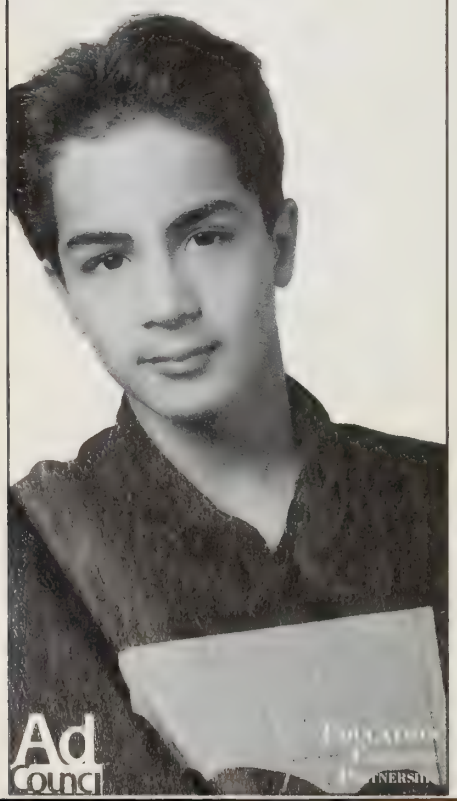

Science Foundation to conduct a one-year study of the feasibility of cyber voting. Arizona Democrats aren't waiting for the results: They'll be able to cast electronic ballots in the state's Mar. 11 Democratic Presidential primary.

Soon there could also be a burst of e-gov services for business. California is already spending $15 million to create databases for corporate filings. Bankers, for example, will be able to look up properties to search for liens.

"It's not simply a matter of putting existing services on the Net," says Greg Woods, chief operating officer for student financial assistance at the Education Dept. "What we're trying to do is what Amazon.com did to bookselling, which is to change [the system] forever," he says. Applying for student aid via the Web site (ed.gov/finaid.html) reduces errors 25-fold because applicants are alerted when they've made a mistake.

Online systems also provide more bang for the tax buck (table). An electronic campaign-contribution filing system created for the Federal Election Commission by SDR Technologies Inc. in Westlake Village, Calif., has cut the time it takes to process donor data from weeks to minutes. "The amount of money flowing has doubled over the last three elections, [but] we haven't had to increase staff to process it," says FEC supervisory statistician Bob Biersack.

merce market, upstarts such ezgov.com are muscling in by offering put services online for free. They p vide Web portals or application-spec solutions at no cost, generating r enues with transaction fees charged the governments or directly to citiz and businesses.

It's a model that budget-constrai governments find appealing. "Gove ments don't want to invest in techn gy only to have to upgrade in a f years," says James B. Dodd, CEO of N

SOME SERVICES NOW ONLINE

TAGS AND TICKETS Arizona motorists can renew vehicle registrations. Cost to the state: $1.60, vs. $6.60 in person. Alaska, Michigan, and other states offer similar services. In Boston, Indianapolis, and Seattle, parking tickets can be paid online.

BUSINESS LICENSES Maryland lets nearly 40 different kinds of professionals—from accountants to real estate brokers—renew their annual licenses online. In the first year of online service, 40% of the state's 250,000 professionals renewed in minutes over the Net, saving the state $1.6 million

STUDENT AID In fiscal 1999, 3.1 million out of 10 million applications for college financial assistance were filed online at the Education Dept.'s student aid Web site. A prompt alerts students when they've made a mistake, which has drastically cuts errors.

"WILD WEST." There's still a long way to go. Individuals and businesses annually do about $600 billion worth of government transactions, excluding paying taxes. But less than 1% of that occurs online. The public sector has been slow to adapt because of its risk-averse culture, shortage of technologists, and the Y2K bug. "Once Y2K gets out of everyone's hair, this is going to go nuts," predicts Janet Caldow, director of IBM's Institute for Electronic Government, an in-house think tank in Washington.

Spending by government at all levels on e-business-related hardware, software, and consulting services will rocket from $1.1 billion in 1999 to $4.9 billion in 2004, predicts James Macaulay, a government analyst at Dataquest Inc. "This market is like the Wild West," he says.

Indeed, while big systems integrators such as IBM, Lockheed Martin, and KPMG dominate the government e-com-

tional Information Consortium Inc., Overland Park (Kan.) provider of I ternet services to eight states. NIC ma a splash last July with an initial pub offering that gave it a market cap nearly $1 billion.

Atlanta-based ezgov.com lets citize renew business and driver's license pay parking tickets, and obtain buildi permits via its site or city and sta government sites. Ezgov.com charg fees of $1 to $5, which governments p in full or pass on to users. So far, t state of Georgia and several cities a counties have signed up.

As governments rush online, the could turn the Net into a powerful poli ical tool. Beyond more convenient se vices, the payoff from cyber governme could be better-educated voters a greater turnout at elections. Wouldn that be a shot in the arm for Democrac

By Amy Borrus in Washingto

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COMMENTARY

By Howard Gleckman

CORPORATE WELFARE: THE SOUND BITE AND THE FURY

ELECTION 2000
TAX REFORM

Weeks before the Jan. 24 Iowa caucuses, Campaign 2000's Presidential mavericks are launching nearly simultaneous attacks on "corporate welfare." On Jan. 4, Democrat Bill Bradley unveiled a $125 billion hit list of unneeded business breaks. On Jan. 11, Republican John McCain was expected to follow suit, outlining his own plan to go after at least $30 billion in business pork.

By playing to their parties' populist constituencies, Bradley and McCain are proving once again that zinging Big Business can be a surefire vote-getter. Still, the duo may be onto something: Both the tax code and the federal budget are full of inefficient special-interest subsidies. Trouble is, releasing hit lists and promising to attack only corporate preferences isn't the smartest way to get rid of them.

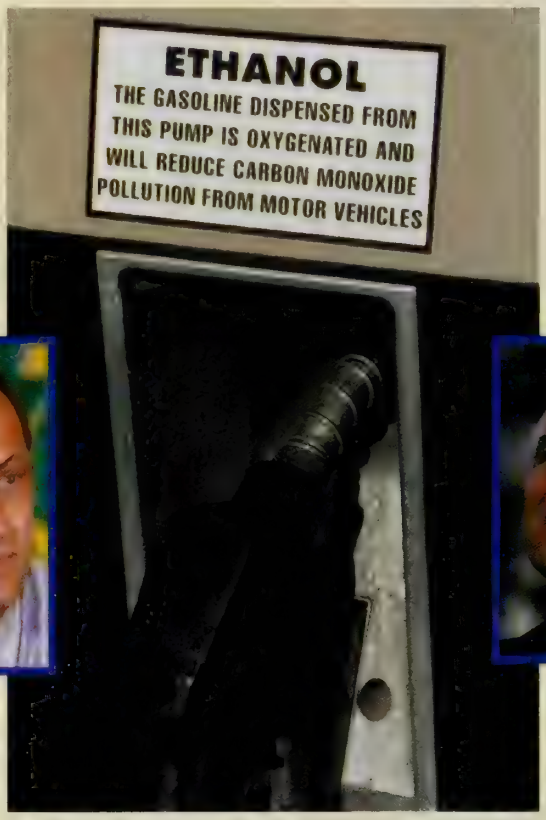
Back in 1986, then-Senator Bradley had one of his famous Big Ideas. He proposed dumping many of the breaks that festooned the tax code and using the savings to lower rates. It worked. The political system accepted the trade-off, and, for a while, reformers managed to clean up the tax laws a bit.

The key was that CEOs weren't just asked to give at the office. Both individuals and entire industries got something tangible out of a flatter rate structure.

There is no such trade-off in either Bradley's or McCain's new blueprint since both insist that another run at broad tax reform isn't in the offing. Bradley feels that near-universal health insurance should come first. McCain says that until the grip of the special interests is broken with campaign-finance reform, it will be impossible to clean up the tax code.

So why go off on an anti-corpocracy crusade? For Bradley, the reason is simple. He has a $600 billion-to-$1.3 trillion national health plan on the table that is being attacked as a budget-buster by Vice-President Al Gore. By cutting corporate tax shelters by about $100 billion, targeted tax breaks by some $23 billion, and spending subsidies by $2 billion—all over 10 years—he replenishes the federal coffers depleted by his health plan. The result, however, is more of a budget gimmick than a coherent tax strategy, especially since Bradley knows that even a Democratic Congress is unlikely to trash breaks for timber, oil-and-gas drillers, and multinationals.

To underscore just how political this is, Bradley omits one of the most controversial tax breaks from his List of Doom—the ethanol subsidy that is backed with religious fervor by the farmers and farm interests of Iowa.



POLITICAL CHOICES: *Ethanol is on Bradley's hit list, but not McCain's*

McCain, who is bypassing Iowa in favor of the Feb. 1 New Hampshire primary, did put ethanol on his hit list. But mixing both tax subsidies and traditional pork-barrel spending into the same category is a stretch. He links business campaign contributions to preferential treatment by Congress and argues that special-interest jockeying is obscene. But he is less outraged when the log-rolling is practiced by Internet businesses trying to avoid collecting sales taxes.

PROGRESS. Does this mean that the dynamic duo is misguided? Not at all. Bradley's plan identifies wasteful preferences and embodies some good ideas. The best: Require companies to explain the difference between the income they report to shareholders and what they file with the Internal Revenue Service.

Actually, there is some real progress being made in the courts against egregious corporate tax-avoidance schemes. But asking Congress to close down shelters is just another way to perpetuate the endless game that goes on between Washington and financial promoters.

The Bradley who gave us Bradley-Gephardt tax reform had the right idea. The best way to close down abusive shelters is to sharply lower rates. Most of these loopholes are created three ways: by turning ordinary income into capital gains, by playing timing games with depreciation, and by taking advantage of differences between U. S. tax rates and those of foreign countries where U. S. multinationals do business.

Real tax reform would go to the heart of this scam, but then, it might not make the nightly news.

Gleckman covers tax policy from Washington.

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HOPEFUL: *CEO Zarb says tech advances will help Nasdaq catch u*

BOURSES

NASDAQ: NOT FAR ENOUGH?

Despite its spin-off, the exchange still favors insiders

Score one for Nasdaq. After almost 30 years in the shadow of the New York Stock Exchange, the junior stock market will beat the Big Board in remaking itself as a for-profit, shareholder-owned exchange. A sweeping plan announced on Jan. 4 will separate Nasdaq from its parent, the National Association of Securities Dealers, by mid-year, raising about $1 billion in capital. More important, the spin-off will enable Nasdaq to invest, upgrade, and innovate for today's bruising competition—months before the NYSE can overhaul itself.

But NASD Chief Executive Frank G. Zarb shouldn't take much comfort from the points he's scoring over NYSE Chairman Richard A. Grasso. Nasdaq's real competition isn't the Big Board: It's the smaller, nimbler electronic trading systems that are stealing business and cutting investors' costs. To compete with these electronic communications networks (ECNs), Nasdaq will need faster, more automated trading that focuses on investors' needs.

That's a big change for a market that, under insiders' control, has more often tilted toward giving brokers and dealers an edge. "The restructuring means nothing unless Nasdaq changes its business strategy," warns Harold S. Bradley, senior vice-president of American Century Investments, a Kansas City mutual-fund manager. Such a wholesale shift is unlikely before Nasdaq moves to true public ownership through an initial public offering, possibly this year.

ECNs have taken 30% of Nasdaq's soaring trading volume away from traditional market-makers. The ECNs are now part of Nasdaq's market—but two of the leading ones, The Island ECN and Archipelago, have applied to the Securities & Exchange Commission to become stock exchanges in their o right. "[Nasdaq] will have to meet on speed, price, service, and liqui ty—and we're ahead on all four," boa Matthew Andresen, Island's preside

Zarb says the new Nasdaq will "more agile, financially stronger, a technologically more advanced." T restructuring will net about $200 m lion in capital for new systems and i tiatives—more if Nasdaq makes an i

But control—not capital—may be t real problem. The private stock offeri will leave Nasdaq's current players charge: Big market-makers will o 31% of the shares, small brokers 25 and NASD itself 23%. Over the long ha ownership will give them an incentive make Nasdaq more investor-friend Short run, though, they'll have a stro interest in preserving their insid advantages.

Indeed, rivals and big investo charge that Nasdaq's newest electron order system does just that. Nasdac proposed "super montage," now awaiti SEC approval, gives Nasdaq dealers fi crack at orders. Instead of enabling i stant trades—as ECNs do—the syste would build in delays to allow broke to trade ahead of pension and mutu funds, Bradley says. NASD officials s the delays are a firewall against mark manipulation.

Many of Nasdaq's new owners fa

ded loyalties because they have big-stakes in potential competitors. dman, Sachs & Co., for example, is ady an owner of Archipelago. Mean-e, Nasdaq is trying to win back iness lost to ECNs. Nasdaq-Japan, new venture to trade U.S. and anese stocks in Tokyo, will soon roll a system to link market-makers the Internet. Nasdaq hopes to ex-t the system to Europe and even-lly bring it to the U.S. The system ld offer Nasdaq-listed companies "access to a global pool of liquidity that doesn't exist now," says Zarb.

Nasdaq also plans to invade the NYSE's turf. It has enlisted Primex Trading, an electronic facility owned by Goldman, Bernard L. Madoff Investment Securities, and other big brokers, to offer an electronic auction in NYSE-listed stocks to Nasdaq brokers. The NYSE's plans to partner with an ECN to trade Nasdaq shares have stalled. And the Big Board won't decide on changing its broker-dominated ownership for almost another year.

But for both traditional markets, overhauling their ownership is just a first step. With technology whittling away the profits of brokers and middlemen in every industry, stock exchanges have to figure out whether to cater to market insiders or stock issuers and investors. The outcome will determine whether the new Nasdaq can best its surging electronic rivals.

By Mike McNamee in Washington

VESTORS

BAD CASE OF ENTURE-CAPITAL ENVY

3O funds are starting to pile into high-risk Internet deals

he world of leveraged buyouts has never been glamorous. It's about finding down-on-their-luck compa-s, piling them up with debt, siphon-off cash flow, refocusing manage-nt, and flipping them to make a ıdle. Mundane, maybe, but a for-la that has worked like a arm: Annual returns, after s, for top-drawer funds aver-ed 22.7% over the past 20 ars, vs. 19.7% for the Stan-rd & Poor's 500-stock index. These days, though, the funds seeking, well, sex appeal. LBO ıses from Hicks, Muse, Tate & rst Inc. to Forstmann Little & . are starting to pile into high-k Internet deals. That's a dra-tic departure from their typical hly leveraged deals. But it's no ystery why they're changing k: In 1999, LBO returns were t 15% compared with 90% for early-ge venture capitalists. And the trend ll accelerate. "More and more funds making Internet investing a part of eir portfolio, adding to the confusion their investors," says Jesse Reyes, ınaging director of Venture Eco-mics, a Newark (N.J.) firm special-ng in private-equity research.

Indeed, some LBO investors are more an just confused—they're downright rvous: "My primary concern is ıether LBO funds have the [necessary] pertise, or are they learning on our kel?" says David Locke, senior in-stment officer of the Los Angeles unty Employees Retirement Assn., ıich invests $1 billion in LBO funds.

The LBO guys, of course, insist they can switch readily from Old Economy industries to the Internet. But their wildly differing strategies suggest that they're still feeling their way.

The most zealous of the new breed is Thomas H. Lee Co. in Boston, a $5 billion LBO shop that has just raised over $600 million to start a separate Internet fund. The firm hired eight Net specialists from General Electric Capital Services Inc. to oversee the fund. "While we are not constrained by our LBO charter, smaller, early-stage investments are more appropriate for a different fund," says founder Thomas H. Lee.

At private-equity fund Kohlberg Kravis Roberts & Co., however, Henry R. Kravis and some of his top execs have made several early-stage investments out of their own pockets rather than use their funds' cash for riskier deals. But the LBO fund has also made Net and telecom investments, albeit in bigger, more mature companies such as CAIS Internet, a provider of broadband Net access.

STILL LEERY. Some LBO players have few qualms about mingling higher-risk Net deals with traditional buyouts. Dallas's Hicks, Muse's private-equity fund invests about 75% of the $7.5 billion it manages in LBOs. But over the past three years, it has made $100 million in early-stage Net investments—though all of them have been in partnership with traditional venture-capital firms.

However, many LBO funds remain leery of the latest fad and how customers would react should they follow it. Vestar Capital Partners, a $2.5 billion buyout fund, for instance, has foresworn Internet investing. "That's stretching our charter beyond what investors intended," says CEO Dan O'Connell.

Skeptics such as Lawrence Schloss, head of Donaldson, Lufkin & Jenrette Inc.'s merchant banking activities, who oversees $6 billion of LBO funds, doubt that the LBO world and Net investing will ever really meld. "The sun doesn't shine on the same dog every day," he says. When the stock market corrects, he forecasts, the LBO guys who strayed will quickly return to business as usual.

Maybe so. But, for now, LBO players are scrambling to find their place in the Internet sun while it lasts.

By Debra Sparks in New York

COMMENTARY

By Moon Ihlwan

SOUTH KOREA: A BOOM—OR A 'TICKING BOMB'?

South Korea is widely regarded as the star performer in pulling out of Asia's 1997 financial collapse. A cursory glance at the latest data suggests that its reputation may be well deserved. The economy grew at a fiery 10.2% in 1999 after slumping 5.8% in 1998; inflation is below 1% after reaching 7.5% in 1998. Meanwhile, the trade surplus has soared to $24.5 billion, and foreign-currency reserves have reached $74 billion.

Yet, say economists, the country remains vulnerable to another bust. Beneath the reassuring surface, Korea Inc. is still a financial wreck. Companies are highly leveraged and laden with debts. Banks are taking on dubious loans. And the administration of President Kim Dae Jung is pegging interest rates around 10%—about half their level during the first half of 1999—to pump growth just as analysts increasingly worry that the economy is overheating. "This is a ticking bomb," says Jun Sung In, economics professor at Seoul's Hong Ik University. "The only hope is that the government will get its act together before the bomb explodes."

STRONG-ARMED BANKS. That hope may be overblown. Facing parliamentary elections in April, 2000, the government is in no mood to risk its narrow majority by inflicting economic pain on voters. A year ago, Economy & Finance Minister Kang Bong Kyun promised that Seoul would focus on overhauling the financial system. Instead, the government has shied away from any measure that could hurt the nation's 24 investment trust companies. That's because together they hold a massive $175 billion owned by 10 million Koreans—or nearly a quarter of all savings. The trusts invest in high-yield corporate debt. They hold, for example, $23 billion worth of bonds sold by the failed Daewoo Group.

In turn, the trusts' exposure to corporate debt has made Seoul most reluctant to force companies to clean up their balance sheets. In 1998, South Korea's corporations had to spend 125% of their operating profits to service debt, according to the state-backed Korea Development Institute. As a result, companies had to borrow yet more. The situation improved in the first half of 1999, but debt service still amounted to 60% of operating profits. Foreign banks regard a 50% figure as a warning sign. Even Hyundai Electronics Industries Co., now the world's largest computer memory chipmaker, couldn't earn enough to service its debt last year.

CRASH TEST: *Ssangyong Motor has lost money for five years*

The government had reason to be spooked. A wave of corporate collapses or debt write-downs could have sparked a bond market bust. Even if the financial system survived, rates would again have soared, probably halting growth.

But in attempting to avoid such a fate, the government often ties itself in knots. In late September, for example, it strong-armed banks to underwrite a $20 billion bond stabilization fund to prop up the investment trusts. Now, it won't allow institutional investors to redeem any funds used to buy nearly worthless Daewoo bonds until July. Retail investors can withdraw up to 80% of such holdings. Few have, because come February, trust companies will have to guarantee to repay them 95% of the original value. Next, the government plans to use taxpayer dollars to keep the investment trusts afloat if they face huge withdrawals.

Meanwhile, Seoul has delayed, beyond the elections, a requirement for the trusts to mark their bond holdings to market values. For now, the bonds are listed at inflated purchase prices. Even when the new rules go into effect in July, they will apply only to new purchases.

The same air of unreality surrounds local credit practices. After insolvent companies are bolstered by bailouts, local ratings agencies often score them as investment-grade, according to KDI. The agencies aren't alone in wearing rosy spectacles. Creditor banks of Ssangyong Motor, a money-loser in each of the past five years, declared it was suffering a "temporary liquidity shortage"—to avoid taking write-downs on their own balance sheets.

Neither creative accounting nor the economic numbers blind shrewd local observers to the underlying reality. For one thing, booming exports depend largely on the surging yen and high prices for lines such as DRAM computer chips, currently in short supply. "The remarkable economic recovery has not been the result of successful reform, but because reform was delayed," says Chung Un Chan, economics professor at Seoul National University.

For now, though, too many people in South Korea and abroad still hold on to the illusion. That's the most worrisome sign of all.

Moon covers the Korean economy.

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TELECOMMUNICATIONS

JAPAN'S MOBILE MARVEL

DoCoMo's Net phone service may become a global force

There are a few things a Japanese teenage girl doesn't leave home without: her six-inch platform shoes, some touch-up toner for her hair color of the day, and her i-mode phone.

Come again? Everyone in Japan knows "i-mode" stands for a white-hot cell-phone service from NTT DoCoMo. The company name is a play on the Japanese word for "anywhere," and the service lives up to that moniker by giving subscribers across Japan cheap and continuous wireless access to the Net.

Europeans, too, can tap into the Net from their cell phones. And thousands of Americans get similar benefits using Palm VII devices from 3Com Corp. But all these systems must establish new dial-up connections each time a user wants to go onto the Net. With i-mode, users are always connected—as long as they can receive a signal and their batteries are charged. Through this persistent link, subscribers get a panoply of Web-based goodies: e-mail and chat, games, horoscopes, calendars, and customized news. All told, i-mode subscribers can navigate among 4,000 specially formatted Web sites.

In coming months, the rest of the world will be hearing a lot more about i-mode—the service, the company that provides it, the stock, and the amazing individuals behind it. Here are a few quick reference points: Since the company was partly spun off from NTT, Japan's former telephone monopoly, in 1992, DoCoMo has become:

—Japan's hottest stock. We're talking a Berkshire Hathaway-level share price. In dollars, DoCoMo has soared from $13,000 a share to $35,000 since June;

—the world's most valuable cell-phone company, with a market cap of $335 billion;

—the largest single-country cell-phone operator, with a total of 27.1 million Japanese subscribers;

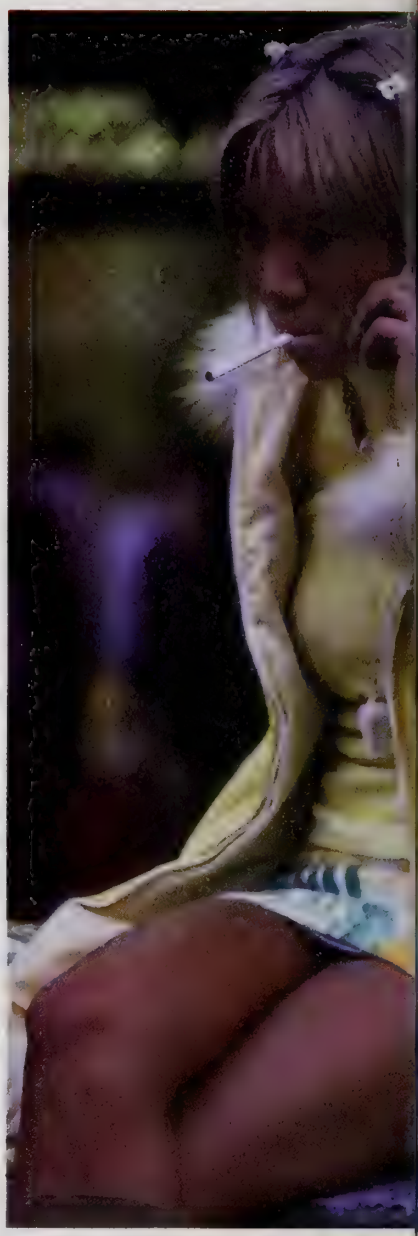
—the most advanced wireless Internet access service on the planet, period.

"NTT's i-mode is the only network in the world today that allows you [continuous] access to the Internet via a cell phone," says Bill Joy, chief scientist at Sun Microsystems Inc. More than 3 million Japanese have signed up, which means DoCoMo is now on its way to becoming the largest Internet service provider in Japan. "DoCoMo has surprised a lot of people in the U.S.," says Nelson R. Sollenberger, manager for wireless systems research at AT&T Labs in Florham Park, N.J. "We haven't seen anything like these numbers for any general wireless data service."

MASS MARKET. No wonder so many Japanese see DoCoMo as Japan's symbol for New Age innovation—the last, best hope to make Japan a contender in the global Internet derby. In the U.S., companies such as AT&T and Motorola Inc. are dickering over technical standards, the amount of bandwidth required for mobile data applications, and whether wireless Web surfers will prefer smart cell phones or palmtop computers. In Japan, DoCoMo has jumped far ahead, showing the world that there is already a mass market, with millions of consumers who don't care that the technology isn't perfect.

In the future, DoCoMo plans to venture from its Japanese stronghold and take on the likes of Vodafone AirTouch, AT&T, and British Telecom in markets around the world. Indeed, if the mobile Internet lives up to expectations, DoCoMo could evolve into the world's mightiest wireless giant. But for that to happen, DoCoMo must prove that its new services and business models have staying power. Right now, i-mode lets users perform all kinds of cool tricks. In Silicon Valley or Scandinavia, friends can't swap pictures of their pets on sleek, 3-ounce cell phones. Japanese do that every day.

But pet tricks won't give DoCoMo a permanent edge over fierce global ri-



CONNECTED IN TOKYO: *DoCoMo's phones are hot accessories*

vals. Already, European and U.S. ce phone moguls are greedily eyeing Asi potential market of 3.3 billion souls. November, Vodafone and BT announc plans to launch a next-generation mob service with Japan Telecom, a local ca rier in which they both hold stakes.

FAMILY TIES. Keiji Tachikawa, DoC Mo's charismatic chief executive, does seem to be alarmed. He plans to fig the competition through a network friendly alliances—a strategy that w likely include taking equity stakes other Asian companies. Tachikawa betting that hostile takeovers of t sort Vodafone has pursued will be turn-off in Asia. Shunning those tactic DoCoMo will woo Asian operators wi

WHY JAPAN IS MAD FOR I-MODE

TODAY DoCoMo's i-mode cell phone service lets subscribers swap e-mail and pictures, search phone directories and restaurant guides, and download news, weather, and horoscopes. Users connect to the Net at 9.6 kilobits per second—far slower than a PC on a phone modem. But unlike PCs or other Web-browsing phones, i-mode systems are always connected to the Net.

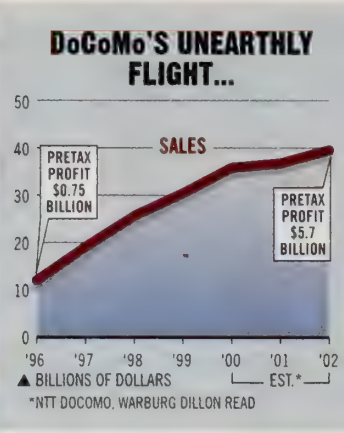
TOMORROW Internet cruising speeds will soon get a lot faster on i-mode. More then 300 kbps should be possible by next year. And by 2003, peak speeds could hit two megabits—fast enough for high-quality music downloads, Webcasts of TV shows, virtual-reality games using the phone as a Net link, and real-time videoconferencing across town—or across the globe.

ds and state-of-the-art technology. 'achikawa has plenty of cash to powis expansion. DoCoMo's 1999 operg profits are expected to hit $5 bil, on revenues of $36 billion. Perhaps e important, DoCoMo represents a ent legacy—one that was once reed to as Japan Inc. Through the 0s and '80s, NTT and its family of erful equipment suppliers—Fujitsu, NEC, and Hitachi among them—embodied some of Japan's most successful industrial policies.

This government-led industrial model looked like a liability during Japan's long recession. But today, newcomers like DoCoMo and its tightly knit content, equipment, and service suppliers can draw on those old family strengths. Giant NTT still owns 67% of DoCoMo. Their combined market cap makes a hostile takeover unthinkable. At the same time, the stratospheric valuation could be currency for DoCoMo's own M&A designs down the road.

For Japanese makers of mobile equipment and handsets, hard hit by recession, things haven't looked this promising in years. The local wireless market is expected to be worth $100 billion by

TACHIKAWA: *Big expansion plans—and lots of cash*



2003, up from $18 billion in 1999, according to the Mobile Office Promotion Assn. About 60% of the 2003 tally will be generated by wireless Internet services, excluding hardware.

Today's head start could hand Japan a leadership role when the mobile Net goes global. DoCoMo's innovators could reap rich licenses on standards they hew. And their umbrella of Internet content suppliers and equipment makers could get a leg up in global markets. Japan has long lagged behind the U. S. in PC and Internet penetration, largely because of keyboard phobia. But personal electronics are another story. This is the country that gave the world the calculator, the Walkman, the pocket TV, the Game Boy, and the camcorder. Millions of Japanese grew up playing video and pocket computer games—the so-called push-button generation. Many are now migrating to Net-ready cellular handsets, often bypassing home computers altogether. They form a perfect testing lab for new Net appliances, starting with smart cell phones.

Maneuvering Japan's millions onto the Net was DoCoMo's real coup. To do so, DoCoMo engineers constructed a "packet-switched" network alongside their existing digital cellular network. With packet systems—as opposed to circuit-switched phone networks—there is no need to give each user an exclusive radio channel. So more users can access the network at the same time. The packet model also reduces costs, since charges are based on the volume of data sent and received. Early on, engineer Keiichi Enoki and his team decided that i-mode should serve as a portal site. They lined up content providers, whose sites could be accessed by clicking on i-mode's menu bar. Then they set up a billing system that gives DoCoMo a commission for each service rendered off this bar. Other content owners would be encouraged to code their Web pages for i-mode as well. But only those belonging to the licensed first tier could be accessed from the bar.

ADDICTION. Tachikawa, president and chief executive since 1998, insisted on a cheap pricing plan to guarantee the widespread adoption of i-mode. Subscribers pay about 4¢ to send a 250-character message, and half that to receive a message of the same size. Tachikawa also insisted that the functions be as simple as possible. "I can access DoCoMo's share price in just two clicks," Tachikawa says.

In its first year of operation, i-mode is on track to post more than $100 million in revenues. But Tachikawa estimates that a user base of 5 million would generate $1.5 billion in fees fr subscriptions, transmitted data, and 9% commission. Since the service v launched in February, subscribers ha been signing up at a rate of 450,00 month. By the end of this fiscal year March, the number should hit 5 milli If the rate keeps accelerating, i-mo could match America Online Inc.'s s scriber base of 21 million next year.

I-mode has already become an ado tion for millions of Japanese. Teens ke their handsets on round the clock a conduct rapid-fire exchanges of messa until their batteries give out. Stude and young adults post passport-style p tures online, which can be viewed downloaded to a handset screen.

The success of i-mode sets the sta for DoCoMo's next big act—an evo tionary advance known around the pl et as 3G, for third generation. essence, it is a set of wireless pro cols that will enable vastly higher co munications speeds. While the fi standards have yet to be hashed out America, Japan and Europe have co mitted to an approach called wideba CDMA, which will let users view strea ing video and a host of other new N applications at a blinding 2 megab per second by 2003—compared with j 9.6 kilobits today. Says an excited N President Koji Nishigaki: "Everyo will be on i-mode in three years."

To protect its lead, DoCoMo kee up a brutal research pace. At a state-the-art research facility in the Yokosu Research Park, southwest of Tok about 700 engineers are testing tra mission equipment, cellular phon palmtops, and car navigation syste based on CDMA (code division multi access). The technology was develop

DoCoMo's next big act: A major digital cellular evolution that promises vastly higher communication speeds

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DoCoMo is looking West: It has deals with Sun and Microsoft, and two new subsidiaries in Silicon Valley

by the U. S. military and commercialized first by Qualcomm Corp. But DoCoMo enhanced the basic platform with its own, homegrown mathematics.

By proselytizing for his own brand of CDMA around the world, Tachikawa hopes to extend i-mode's reach without having to resort to takeovers. Recently, he negotiated a friendly deal to purchase a 19% stake in Hutchison Telecom, Hong Kong's largest cellular operator. Hutchison is expected to announce plans to adopt the i-mode service, and later on, DoCoMo's 3G system. Hoping to rally others, DoCoMo is also conducting 3G tests with operators in Malaysia, Singapore, and China.

CONVERTS. But Tachikawa is not ignoring the West. Last March, he struck a deal with Sun Microsystems to incorporate the company's Java program, starting this fall, and to collaborate on 3G. In October, Tachikawa and Microsoft Corp. President Steve Ballmer agreed to set up a joint venture, called Mobimagic, to develop wireless data services for Japan. If the services take off in Japan, Tachikawa hopes to transplant them overseas. In November, DoCoMo opened two U. S. subsidiaries in Silicon Valley for research and promotion of wideband CDMA.

Some of DoCoMo's closest collaborators are already converts. Microsoft, for example, is doing pioneering work on wireless with DoCoMo in Japan, according to Ballmer. "I hope that will migrate back to the United States, as our wireless infrastructure improves," he said in a recent speech.

As the mobile Internet takes off, DoCoMo will have to fight off competitors while entering new markets. Merger mania is already sweeping through the wireless world—much of it inspired by visions of the mobile Internet. MCI WorldCom Inc. recently went after Sprint Corp. and Britain's Vodafone AirTouch PLC maneuvered to take over Germany's Mannesmann. The pressure from such deals could make competitors even more aggressive.

DoCoMo isn't immune—even at home. Rivals DDI Corp. and IDO Co which account for 27% of the cell-ph market, are merging their cellular erations to push a standard that diff from DoCoMo's. The two will introd a packet network for a mobile Net s vice that will compete with i-mode.

For now, though, DoCoMo latched first and best on to the mo Net, a technology with far greater tential than the other portable el tronics markets Japan has conquer Calculators and camcorders do not c ry with them an entire set of compl Net-based services, complete with n business models and lush venture-cap funding. All these come with the mo Net. Thanks to DoCoMo, Japan is out front of the great land grab.

By Irene M. Kunii in Tokyo, w Stephen Baker in Paris

BusinessWeek ONLINE

For additional stories on DoCoMo, see the Jan. 17 issue online at www.businessweek.co

America's New Century

Where will the future take us

Where are we headed? At THE LIPTON EXPERIENCE 2000, food industry executives have bee invited to raise their eyes beyond their aisles and look closely at the nation and people they serve. W the market fall? Will consumer choice grow still wider? Is brand loyalty growing or declining? What w be the impact on the grocery/food sector? Created by Lipton and *Business Week*, this farsighte gathering will welcome top thinkers on the American future. Food industry leaders, economists, ar political pros will join in a no-holds-barred open discussion – an informed briefing on the issues th will drive this industry in the next decade.

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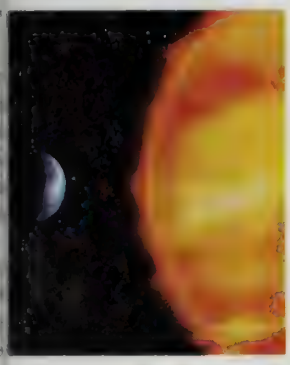


EDDING HT ON LAR POWER

INEERS AT TENNESSEE'S Ridge National Labora- (ORNL) have developed ovel solar energy system could prove far more ef- nt than today's commer- ly available photovoltaic s. Current generators turn sun's light into electricity, then convert it back into t. Because 95% of the en- y is wasted in the process, makes more sense to col- and distribute the light ctly," says Jeff D. Muhs, a earcher in ORNL's Engi- ring Technology Div. Muhs has designed a roof- nted system with a mir- d light collector and a se- of large optical fibers. en light hits the collector, piped through the optical rs to a specially designed t fixture. The solar por- is equipped with sensors measure sunlight levels. he levels fall too far, the sors turn on a fluorescent e in the same light fixture maintain a constant light out.

By directly harnessing the 's energy in this way, the IL system is expected to uce the amount of energy d for lighting by approxi- ely one-third. And by re- ing greenhouse gas emis- ns from electrical power nts, the technology would environmentally friendly. product could be on the ket as early as 2002. □

G'DAY? NOT WITH THE AUSSIE FLU BUG

'TIS THE SEASON FOR SHARING. Unfortunately, if you are one of millions of Americans with the flu, you shared more than holiday cheer. Cases have been reported in all but a few states, according to the Centers for Disease Control & Prevention in Atlanta. As of mid-December, 19 states, including Colorado, Ohio, and Washington, reported either widespread or concentrated regional flu activity. Last week, emergency rooms in Los Angeles County and New York City were forced to reroute patients to other medical centers while they dealt with rooms packed with flu patients.

The germ responsible for this year's spate of illnesses is type A Sydney, named for Sydney, Australia, where it first originated. It is a particularly robust strain: In the past, it has been associated with more deaths than other versions of flu. On average, influenza accounts for 20,000 deaths in the U.S. every year. The CDC says those numbers could be higher this year but cautions that it is too early to say for sure.

Even though the flu vaccine is only 70% effective, it is still the best bet to protect against that hit-by-a Mack-truck feeling. And health experts say that if you do succumb to the virus after vaccination, your symptoms may be milder. Even though the flu season is under way, it's still not too late to go get that shot—immunity builds up in about two weeks, according to Kristine Smith of the New York State Health Dept. If all else fails, try grandma's favorite remedy: chicken soup. □

INNOVATIONS

■ Mowing the lawn and manicuring golf-course greens may become relics of the past. An international research team at the Salk Institute for Biological Studies in La Jolla, Calif., has found a gene that limits the length of grass and other plants. By manipulating the gene, dubbed BAS-1, the researchers say they may be able to make otherwise normal plants that stop growing at a predetermined height. The findings were reported in the Dec. 21 issue of *Proceedings of the National Academy of Sciences.*

■ More confusion has just been added to the debate over the safety of cell phones—whether their microwave radiation affects the brain. Henry Lai, a bioengineer at the University of Washington, says there is evidence in rats that microwaves interfere with long-term memory. He trained 100

rats to swim to a submerged platform. Half were bombarded with microwaves during training. Later, after the platform was removed, the rats that hadn't been subjected to microwaves kept looking for it. Many of the irradiated rats didn't seem to remember it and swam around randomly. What this means for cell-phone users remains muddy—because other studies have found no adverse effects. *Otis Port*

'SEEDS' TO ATTACK PROSTATE CANCER

UNIVERSITY OF ROCHESTER Medical Center doctors are using mathematical equations to improve brachytherapy, a common treatment for prostate cancer.

In this procedure, several dozen radioactive particles, each about the size of a grain of rice, are implanted into the prostate. In a few weeks, these so-called seeds destroy the cancerous cells. To avoid killing nearby healthy organs and nerves, physicians must devise a detailed map of where to plant the seeds. This labor-intensive project is normally done several weeks before implantation—and that can be a problem. A patient's prostate often changes shape or size in the interim, which may complicate the procedure.

Yan Yu, a physicist at Rochester, wants to make the process faster and more precise. He has designed a computer program that automatically selects an optimal seed configuration by analyzing an ultrasound image of the patient's prostate. Yu's program chooses 64 seed patterns at random and evaluates them to find the safest and most effective ones. These patterns are put into the computer again, where they create even more powerful arrangements. Two hundred generations and just two minutes later, the program identifies the one likely to work the best. Yu, in conjunction with startup RTek Medical Systems, also in Rochester, is commercializing the technology. □

THE INTERNET

PORTAL COMBAT

In Asia, a bruising battle for cyberturf

Mary Ong, the CEO of newly formed Lycos Asia Pte Ltd., is the first to admit that her operation isn't up to speed yet. Since U.S. Internet powerhouse CMGI, which owns the Lycos Web portal, announced in September a joint venture with Singapore Telecommunications to set up customized versions of Lycos in 10 Asian cities, Ong has been scrambling to hire staff, find office space, and get the business started—pronto. Lycos launched its Singapore site in December, when it also announced plans to go online in Malaysia and the Philippines. With rivals such as Yahoo! Inc. already well established, Ong knows that Lycos can't afford to lose any more time. "We are late," she says. "We have a big challenge catching up."

It doesn't make Ong's task any easier that other U.S. Internet companies are targeting Asia, too. America Online, AT&T, Microsoft—some of the biggest names in cyberspace are stepping up their Asian operations, forming new subsidiaries, joint ventures, and alliances to take advantage of the world's fastest-growing Internet markets. "U.S. companies have become unbelievably more aggressive," says analyst Rajeev Gupta of Goldman, Sachs & Co. in Hong Kong. And with the November deal between Washington and Beijing on China's entry into the World Trade Organization, the pace is sure to increase as the Chinese phase out restrictions on foreign ownership of local Internet companies.

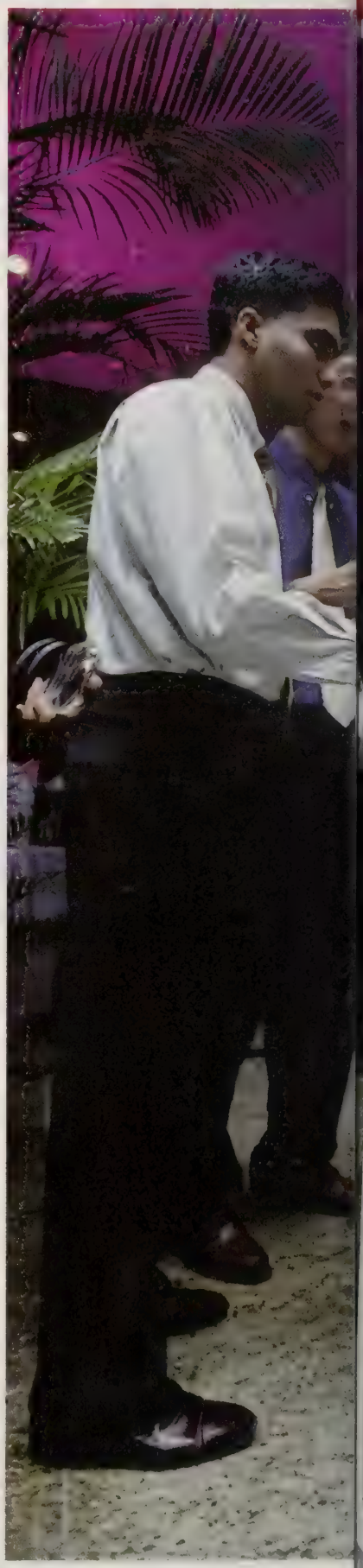
Why the flurry now? Sheer numbers. International Data Corp. estimates that online spending in non-Japan Asia will double from $2.2 billion in 1999, to $5.5 billion by yearend. That's still small by American standards—the U.S. is expected to spend $133 billion on Internet commerce this year—but the trend is clear. By 2002, estimates IDC, 60 million Asians will be hopping on the Net, spending some $30 billion on purchases. "The year 2000 will be the year that the global e-commerce players invade Asia," says David C. Michael, a vice-president at Boston Consulting Group in Hong Kong.

DEEP POCKETS. Already, three front-runners have emerged. At the head of the pack is Yahoo, backed by Japan's Softbank Corp., which is recreating in its Asian backyard the successful investment strategy it used in the U.S., buying stakes in a wide range of Net startups. CMGI, which owns Lycos, is behind a rival group. The third main contender is AOL, which has launched its service in several markets and is a key shareholder in Hong Kong-based Chinadotcom Corp.

> Homegrown portals are not rolling over for U.S. rivals

But their front-row places may be in jeopardy. Homegrown portals are not simply rolling over for the Americans. Some are playing up their local roots to appeal to nationalist customers, while others are introducing new services before the foreigners do. To attract users to its portal, for example, South Korea's Serome Technology Inc. on Jan. 5 started offering free local phone calls using the Internet, and promises free calls to the U.S. later this month.

The newcomers have one big advantage: deep pockets. As more portals, both foreign and domestic, target the region, the competition for good content is becoming heated—and expensive. Unlike the U.S., Asia does not yet have an abundance of interesting Web sites. That's driving up costs. "Because there are not that many content



PHOTOGRAPHS BY MUNSHI AHMED

PLAYING CATCH-UP: *Lycos has a joint venture with Singapore Telecom*

providers, everything will be more expensive," says Savio Chow, head of Yahoo's Asian operations in Hong Kong.

Especially if rivals want to catch Yahoo. Following the early popularity of Yahoo! Japan, started in 1996, Yahoo set up a Korean portal in 1997. Yahoo Korea is now the market leader, with 30% market share and 23 million page views daily. Yahoo has Chinese-language sites for Taiwan, Hong Kong, and Singapore, and the company ranks No. 1 in a survey of popular portals in several Asian countries, according to Sydney-based researcher www.consult.

Another edge for Yahoo is its Chinese-American founder, Jerry Yang, who can promote the company and gain media attention in China in a way that many others cannot. For instance, during a September visit to Beijing, Yang spent half a day schmoozing with graduate students at Beijing University, talking in Mandarin about what it takes to be an Internet entrepreneur. Now, Yahoo is overhauling its Chinese site and forming a new partnership with Chinese software maker Founder, a powerful "red chip," or state company traded in Hong Kong.

CONNECTIONS. As Yahoo expands, AOL is trying hard to keep pace. It started a Japanese version in 1997 and launched AOL Hong Kong in September. AOL hopes that Hong Kong will become a springboard into China. While AOL may not have a Mandarin-speaking founder, it does have something that may be more valuable in China: good *guanxi*, or connections, through its stake in Chinadotcom, a Hong Kong-based portal service and the first Chinese Internet company to go public on Nasdaq, raising $90 million.

CMGI and Intel are counting on *guanxi* of a different sort. They have teamed up with Pacific Century CyberWorks founder Richard Li. In September, CMGI formed a $350 million partnership with Li to develop Web content for the Chinese market. Meanwhile, Intel has invested $50 million in PCC, which is preparing to launch a regional high-speed TV and Internet service this year. CMGI is also going for the glitz. At the introduction of Lycos' Singapore site, the company hired a local artist known as Tanya to entertain guests.

SONGS FOR LYCOS: AT SINGAPORE KICKOFF

As the three main contenders push forward, others must move quickly to avoid becoming also-rans. Microsoft Corp. wants to expand its MSN network. AT&T, through its Excite@Home subsidiary, plans to launch broadband service in Japan in early 2000. On Nov. 10, Internet search engine LookSmart Ltd. announced a $200 million deal with British Telecommunications PLC to develop sites in Asia and Europe.

BUILDING ALLIANCES. In response to the foreign invasion, some local rivals are trying to ignite nationalist passions. South Korea's Daum Communications Corp., which is second to Yahoo! Korea, has appealed to anti-Japanese sentiment by boasting in newspaper ads that it will repel Softbank's invasion just as Koreans defeated Japanese intruders more than 500 years ago. The newcomers also risk being associated with an American pop culture seen by some in Asia as too violent and permissive.

Still, local content providers need to become part of the regional alliances the Americans are forming. "We want to lock onto one of those grids so we can expand our size quickly," says Chong Huai Seng, vice-chairman of Panpac Media.com Ltd., a Singapore magazine publisher. Whether Asians like it or not, the Americans are coming.

By Bruce Einhorn in Singapore, with Cathy Yang in Washington and bureau reports

TARGETING ASIA

Three U.S. companies are taking the lead in developing the Asian Web. Here's how they stack up:

YAHOO! With leading sites in Japan and Korea, it is focusing on China through a partnership with a Chinese red chip, and is looking at India, too

AMERICA Online Developing Hong Kong as a testing ground for China, it is expanding regionally through its investment in China.com

cmgi After forming partnerships with Singapore Telecom and Pacific Century CyberWorks, it is hoping to make its Lycos portal a regional force

MOVIE THEATERS

TROUBLE IN *CINEMA PARADISO*

Chains have gone overboard trying to lure couch potatoes

For Hollywood moguls frolicking in Aspen or St. Bart's over the holidays, there was more than just the end of the century to toast. From *The Phantom Menace* to *The Matrix* and *Toy Story 2*, there was no shortage of hits last year. In all, consumers spent a record $7.5 billion at the box office, up 8% from 1999. But for the nation's theater chains, the bubbly had lost its fizz. Indeed, for many of them, 1999 was the worst year in recent memory.

How can the theaters be doing so poorly when their main suppliers are churning out so many blockbusters? The next time you pick up a cappuccino in the marble lobby and settle into an oversized stadium seat, consider how far theaters have come from the sticky-floored, shabby movie houses of years past.

Problem is, theater owners have gone overboard trying to lure couch potatoes to the movies. Spending on multiplexes has jumped faster than the growth in moviegoers—and even much reviled ticket prices, as high as $9.50, don't pick up the slack. What's more, with all these screens, the theaters have cut their bargaining power with the Hollywood studios. And although theater operators are now scaling back building plans, there's no telling when their investments will pay off. "The whole industry just got way ahead of their customer base," says Christopher P. Dixon, PaineWebber Inc.'s entertainment analyst. "There's no way to raise the price for tickets or Cokes fast enough to offset it."

"TOO MANY THEATERS." As a result, when they tally their yearend results, each of the nation's five largest theater chains—Regal Cinemas, Loews Cineplex, Carmike Cinemas, AMC, and United Artists—are likely to report either losses or reduced earnings from a year ago. Another chain, Mann Theaters, was purchased by a pair of Hollywood studios in October after filing for bankruptcy. "We're finding that there are too many theaters out there right now," says Phil Smitley, the controller of Carmike Cinemas Inc., the country's No. 3 chain with 2,716 screens at 451 locations. The Columbus (Ga.)-based company announced in December that it would not meet analysts' fourth-quarter estimates. Its stock is off 63% over the past year.

For months, Hollywood insiders have expected United Artists Theater Circuits Inc., with 2,069 screens at 300 sites, to declare bankruptcy. Despite a massive restructuring program, UATC lost $67.9 million in the first nine months of 1999.

And money-losing AMC Entertainment Inc., based in Kansas City, Mo., is rumored to be up for sale, reeling after the death in July of founder Stanley H. Durwood.

Theater chains have paid dearly in their zeal to expand. Since 1996, the six largest have spent $2.8 billion to build snazzy new multiplexes, according to Roger Smith, an industry

We mill wheat into flour. Process barley into malt. And produce sweeteners from corn in the U.S., Brazil, and Europe. We produce and process poultry in Thailand. Trade agricultural commodities and foreign currencies on the world's major exchanges. And operate 19 meat processing facilities in North America, where these days, there's some good news for everyone

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#2 LESSON Getting Started: There's No Time Like the Present!

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analyst and longtime studio execut
In the process, the number of scre
in the U.S. rose to 34,168, accord
to the National Association of Thea
Owners, a 33% increase over five ye
(The number is estimated to top 36,
for 1999.) But movie theater attenda
grew only half as fast over the sa
period, with 1.5 billion tickets sol
1998. Nor is building new multiple
cheap. According to Dixon, they c
as much as $1 million per screen
build, about four times the cost of t
aters without all the extras such as s
dium seats.

COMING SHAKEOUT. Amazingly, thou
expansion plans are being curtai
across the industry, more screens
slated to be added. One aggress
builder is Regal Cinemas Inc., wh
was acquired by buyout firms Kohlb
Kravis Roberts & Co. and Hicks, Mu
Tate & Furst in 1998 for $1.2 billi
The company spent nearly $425 mill
in 1999 to add 867 screens and pl
to build 400 more this year.

"People have to stop focusing on grov
for growth's sake and stop plopping
plexes across the street from someb
else," says Shari E. Redstone, president
National Amusements Inc., the priv
chain that controls Viacom Inc.

The oversupply of screens hurts
less obvious ways. For one thing, de
with Hollywood are still structured
old moviegoing habits. That means s
dios get as much as 90% of ticket re
enue for the first week of a film's
lease, dropping closer to 50% for futu
weeks. But nowadays, hit movies ha
shorter runs because viewers have
problem getting in to see them, so t
theaters never catch a break. Wha
more, the chains have also lost th
clout to cut a better deal. "We do
want to lose any of them," says Lar
Gleason, president of worldwide dist
bution for Metro-Goldwyn-Mayer Inc
studios. "But with so many theaters,
one operator demands too much . . .
can always go to someone else."

Finding buyers for the distress
chains could be tough. No rivals ha
come forward to buy up AMC, ev
though its stock is down 60% over t
past year. Maybe the future of movie
ing is a room filled with the waft
cheeseburgers: One bidder rumored
be interested in AMC is McDonal
Corp., which is said to covet the noti
of selling food to filmgoers. An A
spokeswoman says there is "no validit
to that rumor. But who knows? May
what this industry really needs for
turnaround is the drive-thru movie.

By Ronald Grover in Los Angel

GAZINES

VEAVING YET ANOTHER VEB FOR WOMEN

n *Working Woman* be turned into a hot cyber property?

ay Koplovitz tells of being at a dinner in Paris not long ago with a group of friends including journalist rlie Rose and casino tycoon Stephen Wynn. Back in 1977, about the same e Wynn was founding Mirage Res Inc. using junk bonds, Koplovitz put together corporate backers and ted a cable-TV network that she ntually built into USA Networks Inc. re were six changes in ownership ing her two-decade tenure as USA's ried chief executive, and Koplovitz arted in 1998 after control of the $4 ion company was ceded to Barry er. Meanwhile, Wynn was firmly in trol of his creation and counting his ons. "The only difference between and me," Wynn told her, "is that I w Michael Milken."

t was a lesson Koplovitz understood oo well: Women entrepreneurs have vork hard to gain the access to cap- that men take for granted. To help cause, in June, 1998, she became ir of President Clinton's National nen's Business Council. And on Jan. a first-ever venture-capital confer- e for women that she championed is ng held in Silicon Valley.

UN FOCUS." Now, the cable pioneer is ut to put her expertise to the test on Web: She's taking over the helm of company that publishes the monthly gazines *Working Woman* and *Work- Mother* and launching in April a b portal for women built around m. Although it hasn't been announced , Koplovitz has assumed the role of f executive at WorkingWomanNet- k Inc. and has taken an undisclosed ity stake in the business with a up of investors including Oracle nder Lawrence J. Ellison and 2Phone Chairman Clifford M. Sobel.

KOPLOVITZ: *An IPO for next fall?*

While she won't go into details, Koplovitz has big plans, including an acquisition to be announced in late January. She says WWN will be her "main focus," but she's also the chairman of two other companies nearing launch: a pay-per-view service for Broadway shows called Broadway Television Network Inc. and a "wellness" Web site, Wisebear.com. "I've always been seduced by how to bring new products and ideas to life," says Koplovitz.

With WWN, the considerable challenge is to turn print titles into hot cyber properties. Aided by the strong economy, *Working Woman* and *Working Mother* have had something of a revival since publishing veteran Jay C. MacDonald acquired them in 1996, along with *Ms.* magazine, which he sold last year. The magazines together have more than 1.5 million subscribers, and MacDonald says they account for more than half of WWN's $100 million in revenue. WWN, formerly known as MacDonald Communications Corp., also includes the National Association for Female Executives and a conference business.

In handing the reins to Koplovitz, MacDonald remains chairman and the largest individual shareholder after a $12 million financing round that brought in Ellison and others. "Not that Jay isn't a strong manager, but I think his strength was recognizing he needed somebody—preferably but not necessarily a woman—who had experience in being entrepreneurial and creating content from scratch," says Sobel, a WWN director. MacDonald calls Koplovitz "the poster child for this project."

Are even her weighty credentials enough? WWN could put Koplovitz in direct competition with Oxygen Media Inc., the Web site tied to a cable channel gearing up for a February launch by another cable veteran, Nickelodeon founder Geraldine Laybourne. "We'll do a deal with Kay," Laybourne says when hearing of Koplovitz's plans.

But there is plenty of other competition for women's attention online, including iVillage.com and Hearst Corp.-backed Women.com Networks Inc. (table). "It's going to be hard," predicts Women.com CEO Marleen McDaniel, for WWN to catch up. For her part, Koplovitz maintains that no other site is targeted the way WWN will be. "We're going to do business for women all the time—and it's going to be a very deep portal." The company aims to raise more money this spring in advance of an initial public offering next fall. If it works, Koplovitz will prove her business-building acumen yet again, only this time she'll bring a new generation of women along for the ride.

By Richard Siklos in New York

VHERE VOMEN URF
ompetition eats up

UNIQUE VISITORS IN NOVEMBER MILLIONS

iVillage.com	women.com	CondeNet	marthastewart.com	Oxygen	WORKING Woman network
4.512	4.469	1.353	1.073	0.794*	N/A**

*Oxygen launches officially in February; figure is just for its biggest site, Thrive Online. **Launching in April

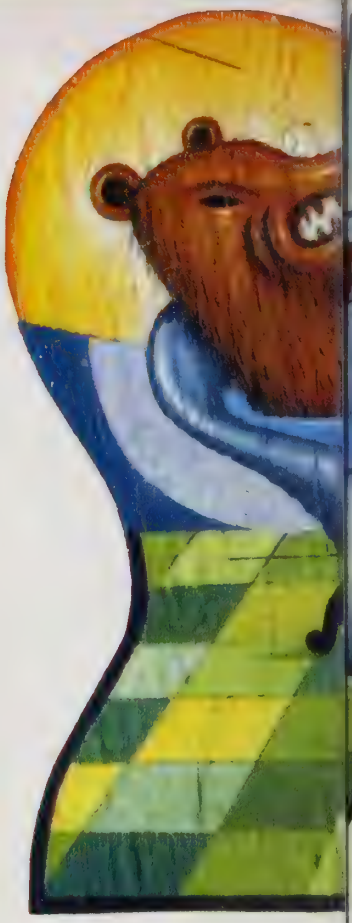
DATA: MEDIA METRIX

THE CONFIDENCE GAME, STEADY VS. SWINGS, DOING THE MATH

BusinessWeek Investor

DEALING WITH RISK

BY ANNE TERGESEN



As the bull market that has spanned two decades continues into the new millennium, a furious debate is raging. Are investors setting themselves up for a big fall, or are they positioning themselves to profit from an era of unprecedented technological change? However the question is resolved, one thing is clear: Americans are revising their beliefs about financial risk. The traditional view, forged during the Depression, defines risk as exposure to loss. But many investors today seem more concerned about being left behind by a market that has rewritten the rules as it has climbed ever higher. Indeed, a BUSINESS WEEK/*Harris Poll conducted in early December indicates that while a maj ity of Americans think stocks are overvalu most assume the market will head higher. St it's worth noting that more stocks fell than r in 1999. That is a reminder that it's too soon declare the old-fashioned definition of risk de To give you tools you need for this new era, t articles that follow explain how the definiti of risk is shifting and why investors appe more willing to take on risk. We also help y assess whether you've taken on the right amou of risk to meet your goals and how to structu a portfolio to give you the best possible retur for the risk you're comfortable taking.*

Is Your Comfort Level Too High?

The Framework

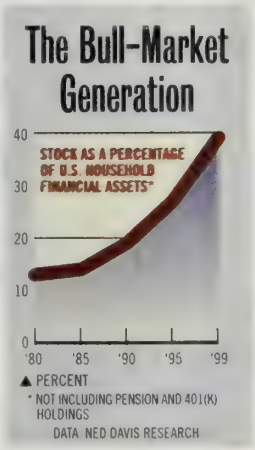
These days, when day traders can make thousands just by riding a hot Net stock for minutes, it seems as if everyone is rolling the dice and coming up a winner. Investors are so accustomed to double-digit stock gains that many are depleting their savings in the expectation of never-ending high returns. And, enticed by stock-option packages once reserved for corporate elites, droves of workers are hitting pay dirt by leaving established companies for unproven startups.

Whether this 18-year bull market is headed f disaster or turns out to be evidence of a golde new economic age, the view forged during th Great Depression of stocks as highly risky i vestments has been upended. "People have co to think of U.S. stocks as the riskless asset says Brian Singer, managing d rector of specialized investmen and risk analysis at Brinson Par ners, a Chicago-based unit of Swiss bank UB "People are taking more risks, though they pro ably don't think they are."

deed, emboldened by the soaring market as as academic research suggesting that stocks less risky than bonds if held for more than ears, investors have increased their exposure his asset class. Today, stocks and stock mu- funds held outside of 401(k) and pension ac- ts make up a record 39% of household fi- ial assets, up from 11.6% in 1982, year the bull market was born, the Ned Davis Research Group.

FIDENT. So strong is the current etite for stocks that households taking on record levels of debt ay them. Since March, 1997, New k Stock Exchange member firms doubled their borrowings to buy ks for clients "on margin"—an ngement that allows investors to loans to pay for up to 50% of a k's price. Although margin debt remained flat as a percentage of stock market's rising value, it equals a record 2% of gross do- tic product, up from 1% in 1995, Jane D'Arista, director of programs for Fi- cial Markets Center, a nonprofit research p in Philomont, Va. "People feel they have to to take advantage of this market," she says. I'm not sure many understand the risk, use they have yet to live through a margin —a repayment demand triggered by sliding e prices.

vestors' high expectations could set them or a fall. With the Standard & Poor's 500-stock index coming off of five consecutive years of double-digit gains, the 1,010 people PaineWebber polled in early December expect average annual stock returns of 19% over the next 10 years—far above the long-term average of 10%. Moreover, though surveys—including a recent BUSINESS WEEK/Harris Poll—indicate that most people think the market is overvalued, they seem little concerned that it will ever suffer a lengthy losing streak. When Robert Shiller, a Yale University economics professor, asked 147 people in 1999 whether the market would recover within a couple of years from a crash similar to the one in 1987, an overwhelming 91% said it was somewhat or very likely to rebound, up from 82% in 1996. "People think the market has short-run risk but that if you ride it out, there is no risk," Shiller says.



Perhaps for that reason, investors have stayed with stocks even as overall volatility has increased. According to the widely followed CBOE Volatility, or VIX, Index—which measures price changes on options to buy or sell S&P 100-stock index contracts—volatility is nowhere near where it was in the midst of Asia's financial crisis in 1998. However, it is about 50% above its 1995 level.

With rich stock valuations also doing little to dampen demand, Federal Reserve Chairman Alan Greenspan wondered aloud in a speech on Oct. 14 whether investors are too lighthearted in

Risk Terms

BETA Beta relates the volatility of a security to that of the market as a whole. If an investment moved exactly as the market moved, it would have a beta of 1.0.

ALPHA Most commonly used with mutual funds, alpha describes the difference between a fund's actual return and its expected return, given the level of risk it takes, as measured by beta. A fund with a positive alpha has done better than expected, while a fund with a negative alpha has underperformed.

STANDARD DEVIATION A statistical measure of the range a fund's price fluctuates within over time compared with its average price. If two funds have the same average return, investors should prefer the one with the lower standard deviation. To calculate it, average your investment's monthly returns over the past 36 months or longer. Then, subtract this average from each of the individual monthly return figures. This tells you how the investment has deviated from its average return. Then, square each figure and sum the results. The square root of this final number is the standard deviation.*

SHARPE RATIO This provides you with a return-per-unit-of-risk measure. To calculate it, take an investment's return minus the "risk-free" rate, divided by the investment's standard deviation. ▶

Risk Terms

R-SQUARED Tells you the degree to which an investment's returns rise and fall at the same time as the benchmark it is being compared with. An R-squared of 0 means an investment's returns have no correlation with the benchmark's fluctuations. A 100 reading indicates that they are perfectly matched. Low R-squareds also indicate that the beta of the security is not reliable.

MORNINGSTAR RISK Measures a fund's downside volatility relative to that of the average U.S. equity fund. To calculate it, Morningstar adds up the amounts by which a fund fell short of the three-month Treasury bill's return and divides by the total number of months in the rating period.

DATA: S&P PERSONALWEALTH.COM, BUSINESS WEEK, MORNINGSTAR, VANGUARD GROUP, CBS MARKETWATCH, *BUGEN, STUART KORN & CORDARO

their attitude toward risk. "History tells us that sharp reversals in confidence occur abruptly, most often with little advance notice," he warned.

Of course, over the past two decades, most Americans have had no choice but to become more risk-tolerant. Even as the fall of the Berlin wall eliminated the cold war's military threat, Corporate America was rescinding its tacit promise of lifetime employment. Now, instead of relying on corporate paternalism, employees assume the risk of managing their retirement portfolios as well as their careers.

When it comes to investing, developments unique to the current bull market also promote risk-taking. Consider the rise of online trading, which accounted for 30% of the volume of retail transactions in the first half of 1999, according to U.S. Bancorp Piper Jaffray. On the Internet, average investors can take charge of their own trading and get financial data previously available only to pros. The downside, though, is that this often fosters a false sense of confidence that prompts traders to engage in more speculative transactions online than off. "Individual investors don't do that well with speculative trades. On average, the stocks they buy underperform those they sell," says University of California at Davis finance professor Terrance Odean, co-author of a recent study on online investing. "That says to me that they are underestimating their risk."

Still, the most likely explanation for people's rising comfort with financial risk is the safety net created by years of prosperity. Richard Thaler, a University of Chicago Graduate School of Business economics professor, has found that like gamblers, investors tend to take more risks when they feel they are ahead of the game. In experiments, Thaler gave some people $30 and others nothing. Those with a nest egg to fall back on were more likely to gamble when offered chance to flip a coin for $9.

These findings indicate that appetites for r expand and contract along with the Dow Jo industrial average and the S&P 500. However memories of the Depression fade and the eco my enters an era of technology-driven char even Greenspan argues that at least part of recent decline in risk aversion should be p manent. "The rise in the availability of real-ti information has reduced uncertaintie Greenspan said in his Oct. 14 spee

Margin Debt Is Soaring

▲ BILLIONS OF DOLLARS

*NEW YORK STOCK EXCHANGE MEMBER FIRMS' CUSTOMERS' MARGIN DEBT

DATA: NEW YORK STOCK EXCHANGE

LITTLE PROTECTION. In what they lieve to be a reduced-risk envir ment, investors are willing to p more for stocks. But rich stock pri also create a catch-22: As valuati soar, so can volatility—a key m sure of risk, notes Edward Ke quantitative research director at P dential Securities. By most measur volatility has risen since the ea days of the bull market. "When pr earnings ratios are high, it means vestors are very confident the fut is going to be good," Keon says. T increases risk because it leaves tle protection against bad news— Tandy Corp. shareholders discovered on Dec. when the stock lost 20% of its value on ne that holiday sales were weaker than expecte

Even Jeremy Siegel, the Wharton School p fessor who popularized the notion that sto are less risky than bonds if held for long perio cautions that some of the confidence his work inspired may be misplaced. In a bear market, says, investors could easily panic and aban long-term commitments to stocks, exposing the selves to more risk than they had bargained "History tells us," he warns, "that very rec performance burns in our minds much m strongly than some academic study that s that if you hold on you will be all right."

How Much Volatility Can Cost You

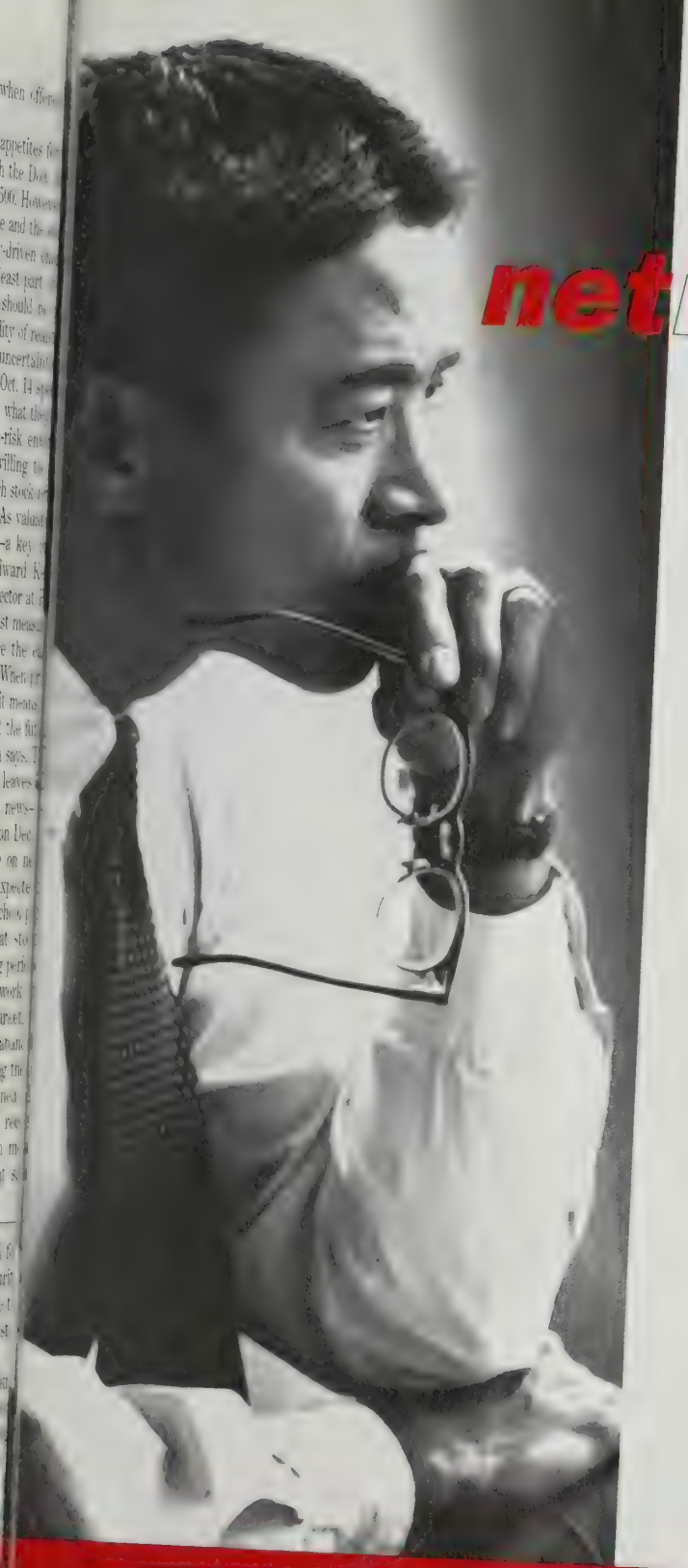
Risk Tolerance

Even if you swear you will cling to your stocks through a ferocious bear market, it doesn't pay to ignore risk. For one thing, investors who match their risk tolerance to the risk in their portfolios have a better chance of sticking to their plans when things get ugly. Risk also has a big impact on what investors care most about—returns. Generally, as an investment's riskiness rises, so does the potential fo big payoff. But because high-octane securit are prone to blow-ups, it's foolish to assume t the road to riches is paved with Internet st certificates.

To see why, throw a dart at the 10 riski mutual funds ranked according to a comm measure called standard deviation. You mig find a winner, like the Internet Fund, which turned an average of 89.2% annually over t past three years. But you might also draw t Lexington Troika Russia Fund, which lost average of 20.6% a year over the same perio

Of course, when picking stocks and fun most investors search for hot performers. T doesn't work either. But because an investmen risk level tends to remain c stant over time, risk-adjusted turns have "some predictive v ue," says Leah Modigliani, a Morgan Stanl Dean Witter U.S. investment strategist.

In a study that ranked 660 stock mutual fun



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From March 8-10, 2000, Business Week magazine will host a prestigious corporate finance event in Aventura, Florida. A distinguished group of America's top corporate financial leaders will gather at the Turnberry Isle Resort & Club for a private, invitation-only forum to examine the ways in which CFOs can successfully manage for value and growth in an era of rapid, and often unpredictable, change. Conducted in a retreat-like setting, the forum encourages collegial interaction so that participants may gain the well-founded knowledge that is only derived from exchanging ideas, sharing experiences and engaging in compelling discussions.

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with 10-year track records according to risk-adjusted returns, Modigliani found that a statistically significant 39% of those in the top quartile during one five-year period landed there again in the next five years. Morningstar, BUSINESS WEEK, and *S&P Personal Wealth* also offer risk-adjusted rankings of thousands of mutual funds.

BIG DIFFERENCE. The value of risk-adjusted returns is clear when you compare two investments, each earning an average of 10% a year. Because of compounding, $100,000 invested in a portfolio that rises a steady 10% each year will become $672,750 after 20 years. That same $100,000 is worth only $480,000 after two decades if it is invested in a more volatile fund that alternates between 30% annual increases and 10% annual declines, according to Bugen Stuart Korn & Cordaro, a Chatham (N.J.) money-management firm.

Before gauging the riskiness of your investments, it's important to understand your toler-

$100,000 earning 10% a year for 20 years will yield $672,750. But if returns swing between +30% and −10%, it will yield only $480,000

ance for financial uncertainty. Time horizons p a big role, with those needing cash soon able take fewer chances than those who don't. To sess a client's comfort with risk, Bugen Stu demonstrates what would have happened to investor who put everything in stocks in 1 and 1974, when the Standard & Poor's 500-st index lost about 40% of its value. If clients l the nerve or cash to hang tough, the firm duces its recommended commitment to sto until hitting a comfort zone. "The worst thin can do is put you in a portfolio that is too vola and have you bail out at the bottom," part Christopher Cordaro says. Indeed, in 1975, S&P 500 rose 37.2%.

Whether big swings in stock prices thrill scare you, keep in mind that when constructin portfolio, risk is only one factor to consider. A other is how much your investments need earn to meet your goals. If you're too conser tive, you might unwittingly expose yourself to even greater risk than that posed by the st market—that of not having enough money retire on.

The Nitty-Gritty: How To Do the Math

Measuring Risk

How can you figure out how much downside risk an investment exposes you to? Answering this critical question can be tricky: There are so many ways to calculate risk. On top of that, many risk measures have their own limitations. And then there's the separate question of how you should use the risk barometers you pick. But there one rule you should always follow. though it is easy to get a separ risk reading on each of your inve ments, you should care only ab how your portfolio rates as a who

It's important to go for the big p ture because a diversified portfolio c ries less risk than the sum of its pa The reason is that in a diversified po folio, individual components—such stocks and bonds—are unlikely move in sync, especially over the lo term. Thus, each can offset some another's risk. The volatility of stoc for instance, could be balanced out by fixed interest and principal payments of bon

LOTS OF BASKETS. It's hard to grab a calcula and arrive at a figure that reflects the ove risk in a portfolio. Still, a back-of-the-envelo reckoning provides a rough—though inflate gauge, says Judith Ward, a certified financ planner at T. Rowe Price Associates Inc. in B timore. Just research the risk scores discuss below on each investment and multiply by th percentage weightings in your portfolio. Th calculate an average. "It's not ideal," says Wa who notes that this fails to account for divers cation's risk-reducing magic. "If you are diver fied, your risk is probably going to be less."

For something more accurate, you can hire a nancial adviser. Or you can use a free Web serv such as Financialengines.com to assess how ris your portfolio is, compared with that of the av age investor. To define risk, Financialengines us the measure known as standa deviation, which it expresses a numerical score. For instance, your rating is 1.4, then you are taking 40% mo risk than the average of 1.0.

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MODIGLIANI: *Devised a way express risk-adjusted retur*

Happily, about 96% of any one company's risk can be eliminated simply by owning a diversified portfolio of 40 to 50 stocks

be easier to interpret if you have a grasp of how professionals measure financial risk. When it comes to stocks, investors confront two types of risk. One is posed by market downdrafts, which can punish even the most worthy investments. The other consists of problems specific to companies, such as mismanagement or obsolete products. For mutual funds, there is a third variety of risk, which is posed by "a bad manager who charges high fees and doesn't make enough to recoup that cost," says Martin Gruber, finance professor at New York University's Stern School of Business.

TOO CRUDE? Happily, about 96% of company-specific risk can be eliminated simply by owning a diversified portfolio of 40 to 50 stocks, Gruber says. The risk that remains—a loss due to a market sell-off—is captured in a measure called beta. Beta compares the magnitude of an investment's price swings with the market's overall fluctuations. To see how it works, look at the Internet Fund. With a beta of 2.24, it is deemed more than twice as risky or volatile as the market, which is always assigned a beta of 1.0. So, if the market drops by 10%, the fund should fall by 22.4%. Fidelity Magellan Fund, in contrast, nearly matches the Standard & Poor's 500-stock index: Fidelity is 1

Appealing because of its s plicity, beta is sometimes crude to be useful. For thing, it is often calculated c pared to the S&P 500, a big measure that is a poor yards for other asset classes. To out whether you can trust to give you an accurate pict of an investment's risk, look another statistical measure, squared. This tells you the gree to which an investme price rises and falls at the sa time as the benchmark it is ing compared to. An investme beta can be considered relia only if its R-squared falls tween 85 and 100, meaning t it closely tracks the index. Th the Vanguard Gold & Preci Metals Fund's R-squared of (compared with the S&P sign its beta of 0.70 is a poor measure of the fu true riskiness.

When confronted with a low R-squared, fin beta based on a better benchmark. For mut funds, Morningstar.com publishes betas that both the S&P and the most appropriate ind For stocks, Personalwealth.com tailors betas peer groups, such as computer hardware stoc But be wary of beta when a company or fu specializes in fast-changing technologies. "T beta is also going to change rapidly," Gru says. Of course, if your holdings are not dive fied, it can be dangerous to rely on beta at Gruber notes that when it comes to individ stocks, beta explains only 35% of the risk. T rest is due to company-specific developments

GO FIGURE. For an all-inclusive picture, look standard deviation, which compares the ran an investment's price fluctuates over time to average price. A fund with a standard dev tion of 4 and average annual gains of 24% o the past three years can be expected to deli returns that fall within four percentage points its average two-thirds of the tir In other words, you can g erally expect to see ga that range between 20% a 28%.

It's possible to calcul standard deviation yo self (table, page 103). F Microsoft Corp.'s Ex program has a standa deviation calculator th makes the task easi Still, standard deviati has flaws, foremost which is that it is oft calculated using

Where To Find Risk Measures for Funds

WEB SITE (www.)	WHAT'S AVAILABLE
businessweek.com/investor/	Proprietary risk-adjusted ratings on nearly 4,000 stock and bond funds
cbsmarketwatch.com	Standard deviation, R-squared, beta, best- and worst-three-month returns
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Many gauges of risk, such as betas and alphas, are useful only if the stock being assessed resembles the benchmark used to measure it

months of returns. As the market's hot gains over the past three years indicate, short time horizons may not be representative of the long run, says Ken Fuller, vice-president at T. Rowe Price. To avoid this problem, Morningstar provides standard deviations of 3, 5, and 10 years.

Standard deviation is also often faulted for penalizing funds that soar just as much as those that plummet. Of course, most investors complain only when they lose money. In part to respond to this criticism, Morningstar came up with "Morningstar Risk," which ranks funds by how often they underperform the returns of three-month Treasury bills, a nearly risk-free asset. The higher the score, the riskier the fund. Take the Oberweis Emerging Growth fund. Its five-year rating of 2.32 means that the fund has 132% more downside risk than the typical U. S. stock fund, which is assigned a value of 1.0. Such volatility is also reflected in the fund's annual returns, which range from a loss of 8.55% in 1997 to a gain of 87.06% in 1991. A shortcoming of the Morningstar system is that it can be used only to compare similar funds. For example, while a bond fund with a score of 1.3 is 30% riskier than the average bond fund, there's no way to tell if it is less risky than a stock fund with a score of 1.0.

Three other commonly used risk measures gauge risk-adjusted performance. The most well-known, the Sharpe ratio, is the brainchild of Nobel laureate William Sharpe, a Stanford University professor and the chairman of Financial Engines Investment Advisors. Sharpe's formula measures the extra return investors receive for each unit of risk they take. The beauty of the Sharpe Ratio is that it allows for an apples-to-apples comparison of different assets. "If the Sharpe ratio is higher for one fund than another, I am getting a little more expected return for taking that expected risk," Gruber says. That is certainly true of Legg Mason Value Trust, which returns 1.09 for each unit of risk, compared 0.55 for the average U. S. stock fund, acco to Morningstar.

A similar result is furnished by M-squ the creation of Leah Modigliani, a U. S. strategist at Morgan Stanley Dean Witter her grandfather, Nobelist Franco Modiglian squared adjusts an investment's risk lev match that of a benchmark, such as the S&P How? To reduce the standard deviation volatile technology fund, for example Modiglianis' computer adds risk Treasury bills to the portfolio it matches the S&P 500. F conservative fund, they leverage—or borrowed fun to simulate more exposur stocks.

When adjusted for risk, s top performers look decidedly attractive (table). Take the Inte Fund. Over the past three years, it has retu an average of 89.2% annually. But on a risk justed basis, its performance falls to 28.2%, Leah Modigliani. Although you can crunch numbers yourself, it's easier to ask your manager or investment adviser for figures.

HOLY GRAIL? Another way to determine well a fund or stock stacks up is to look at it pha. Alpha measures whether an investme producing better or worse results than expe given its risk. Consider a fund with a beta of If the market rises by 20%, it would be expe to gain half as much, or 10% the fund instead increases 15%, its alpha is 5, meanin beat expectations by five centage points.

Although many consider betas and high alphas the H Grail of investing, both meas are subject to the same dis tions. Like beta, alpha rev little unless a fund closely sembles its benchmark. P high alphas do not predict ture performance, says Tho Schneeweis, finance professo the University of Massachus at Amherst. Indeed, wher comes to forecasting, very alphas are more valuable: T sometimes signal poor per mance ahead because as vestors yank money from ging funds, it's that much harder for managers to keep up, Schneeweis says.

Understanding risk will help you build a b ter portfolio, but getting a handle on risk doe eliminate it. If the market falls 10% and y fund is down 8%, you might feel a little smar than your neighbor. But you have still lost m ey. The trick is to use the tools that are now widely available to minimize damage dur downturns and make sure your long-term go jibe with the risk you are comfortable taking

Returns and Risk for 1999's Top 10 Mutual Funds

FUND NAME*	1999 RETURN	3-YEAR ANN. RET.	M-** SQUARED	STANDARD DEVIATION**	BETA**	ALPHA**	SHARPE RATIO	M'STAR RISK**
VAN WAGONER EMERGING GROWTH	268.8%	41.2%	20.2%	66.5	1.39	14.3	0.60	2.16
WARBURG PINCUS ADV. JAPAN SMALL	263.9	43.8	24.3	50.0	0.38	34.7	0.86	1.14
AMERINDO TECH. D	234.2	58.2	23.0	94.4	1.77	24.4	0.62	2.42
FIDELITY JAPAN SMALL	210.0	40.0	22.3	50.6	0.58	27.0	0.77	1.32
WARBURG PINCUS ADV. JAPAN GROWTH	206.3	43.7	26.3	44.1	0.50	30.3	0.97	0.94
PBHG TECH. & COMM.	196.3	45.2	24.4	53.1	1.47	12.5	0.84	1.73
VAN WAGONER MICRO-CAP	189.1	37.4	20.0	56.8	1.22	12.7	0.63	2.09
INTERNET	184.9	89.2	28.2	129.6	2.24	41.4	0.71	2.24
FIRST AMERICAN TECH. A	175.5	48.2	25.2	55.8	1.55	13.8	0.86	1.66
FIRSTHAND TECH. VALUE	165.2	44.4	23.6	55.4	1.58	10.4	0.79	1.80

*Funds with at least three years of history **Measured over three years

DATA: MORNINGSTAR, M-SQUARED PROVIDED BY MORGAN STANLEY DEAN WITTER
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THE ETHER KEEPING AMAZON ALOFT

BY ROBERT BARKER

Presto! By paying for acquisitions with stock, Amazon is allowed to add—not subtract—the cost to its equity

Late in January, Amazon.com is set to disclose fourth-quarter sales and losses. Until then, count on hearing no end of market babble. Worriers will fret that a crush of Christmas orders left more red ink than expected at the Internet's leading retailer. The bulls will reply, "Who cares? We don't expect Amazon in the black before 2002."

My advice: Tune it all out as so much short-term noise. If you own Amazon, or are tempted by a stock that has zoomed from its 1997 debut at 1½ to as high as 113 in December, you've got longer-term risks to consider. Amazon recently sank to 76, but that's nowhere near the bargain bin. In fact, in one largely unseen way, the lower Amazon's stock falls the more risky it gets.

If that sounds crazy, please let me explain by diverting your attention from the popular obsession with Amazon's next sales-and-loss report. Instead, take a moment to gaze on the curious picture made by Amazon's last balance sheet, its Sept. 30 snapshot of financial health.

There, you'll discover a company that at first looks nothing like the happy-go-lucky-drunken-sailor Amazon we've come to know, an outfit that has lost a cumulative $559 million and burns cash as if the calendar ran out of pages. At that rate, you'd expect to see its shareholders' equity, or net worth, dwindling, quarterly loss by quarterly loss. Instead, despite $397 million in losses through September, Amazon's stated net worth last year tripled, to $420 million.

How could that be? Most of the credit goes to a $580 million series of acquisitions of three small Internet businesses that Amazon closed last spring. Amazon paid mostly stock, issuing 8 million shares. The accounting gets tricky here, but Carlo Pippolo, an accountant with the Financial Accounting Standards Board, tol that in mergers like Amazon's, the val shares used in payment must be added t buyer's equity. If the buyer pays cash amount is subtracted from equity.

Amazon followed the rule exactly, wit happy effect: It spent big for a bunch of panies yet—presto!—saw shareholders' equ its June quarter balloon from $78 milli $571 million, despite a quarterly loss of million. When you hear executives talk ea about using stock as "currency" for deals, t what they mean. The new stock dilutes th sition of current shareholders. But it lets act as their own central bankers.

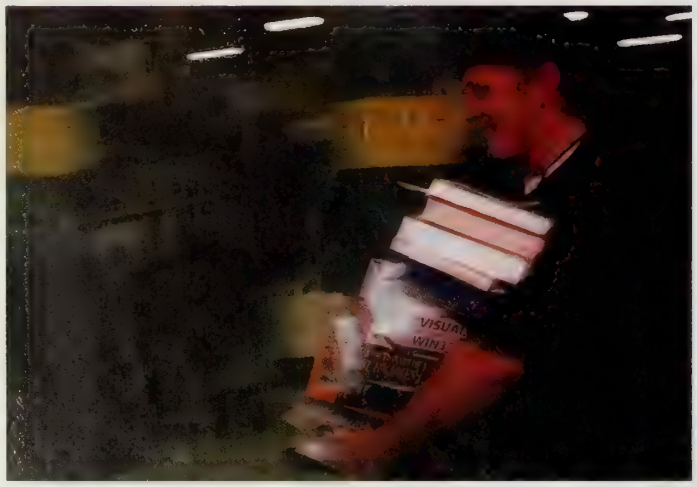
For Amazon last year, the method w great. The potential trouble lies in the fu Amazon pays no dividend, posts no profits generates not a cent of cash flow to su the price of its stock. It's held up instea ether—a belief that Amazon's obviously managers will build a company so big and cient that black ink finally will flood in.

"GROWTH STAGE." That could happen. At report, Amazon still had $906 million in th enough to keep going for at least another ye also has registered with regulators to rais additional $2 billion. Amazon won't give an tails. But it already owes a lot, about $1.4 b and without the goodwill and other intangibl sets on its balance sheet, the company's tan net worth sinks to a negative $286 million (t As 1999 started, that deficit stood at $41 mi

Amazon CFO Warren Jenson told me whether net worth is positive or negative small meaning at Amazon's current "gr stage" in its life cycle, when it's investing h ily. "The worst t that we could be d today is to make a for profitability at expense of growth told me. Jenson made plain that A zon would never i stock in a deal si to bolster the bal sheet. "It's just no effective way to r business," he said. focus is to contin do the right thing customers and sh holders every day."

Fair enough. your part, if the ether around Amazon s should lose its intoxicating punch and the st value as currency in mergers evaporates, c on Amazon to act less like a central banker more like that drunken sailor, this time wi wicked hangover. That's a risk the crow missing.

For barker.online, go to www.businessw com/investor/ or AOL keyword: BW Daily.



ON THE BOOKS: *At Amazon, making a profit is not job one*

How the Figures Stack Up

KEY FIGURES FROM ITS BALANCE SHEET*

CASH AND MARKETABLE SECURITIES	$906 MILLION
LONG-TERM DEBT	$1,462 MILLION
SHAREHOLDERS' EQUITY	$420 MILLION
INTANGIBLE ASSETS	$706 MILLION
TANGIBLE NET WORTH	–$286 MILLION

* As of Sept. 30, 1999

DATA: AMAZON.COM, BUSINESS WEEK

QUESTIONS? COMMENTS? E-mail barkerportfolio@businessweek.com or fax (321) 728-1711

URTLING TRUE NORTH

ENE G. MARCIAL

ad boom has
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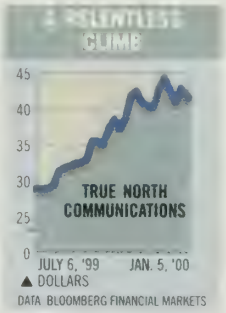
Shares of True North Communications (TNO) have been racing upward, thanks to the boom in advertising brought about by the surging economy. The stock of the world's sixth-largest ad company leaped from 28 in early July to more than 42 on Jan. 5—hardly feeling the impact of the Dow's 360-point collapse that very day. Some pros think True North is still way underpriced and has yet to be recognized for its recent turnaround—under the leadership of new CEO David Bell—following a lackluster 1998. True North shares "present the best value in the advertising and marketing-services industry," says Bear Stearns analyst Alexia Quadrani, who notes that True North's stock is trading at 20 times her estimated 2000 earnings of $2.10 a share, compared with an industry average price-earnings ratio of 30. With the coming Presidential elections and the Sydney Olympics—on top of the surge in Web advertising—the True North story becomes even more compelling, she adds. Quadrani's target price for the stock is 60.

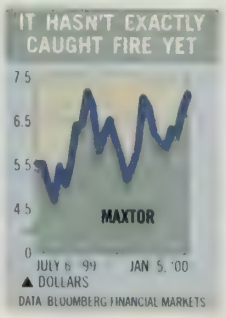


The Internet has driven up ad spending as new Web-based companies try to establish identities. Meanwhile, established advertisers are also spending more—to bolster their brands against new rivals. True North owns 50% of major interactive ad and e-commerce company Modem Media.Poppe Tyson.

Although acquisitions have played a big role in True North's growth—it doubled in size after acquiring ace ad agency Bozell, Jacobs, Kenyon & Eckhardt in late 1997—Chairman Bell (who was Bozell's CEO) says he will refocus on organic growth as part of his goal to achieve growth in earnings per share of 15% a year.

Morgan Stanley Dean Witter analyst Michael Russell rates the stock a "strong buy."

FOR MAXTOR, A NICE NICHE IN SERVERS?



Expect the stock of Maxtor (MXTR), a provider of hard disk drives for PCs, to catch fire soon—for two reasons: The company is poised to unveil, say some pros, an array of Web-enabling and Linux storage server products. And a major PC maker is said to be negotiating to buy Hyundai's 36% stake in Maxtor.

This month, says a big investor, the company will outline its entry into the storage server and network attached storage (NAS) markets. It will provide Web storage servers to Internet service providers and e-commerce companies, and Maxtor expects to sell them to the likes of Intel, Sun Microsystems, Dell, and Amazon.com.

Vince Carrino, president of Brookhaven Capital Management, who has a 5% stake in Maxtor, says this niche market will be hot. He expects Maxtor's sales in that business to grow from $30 million in 2000 to nearly $500 million in 2003. Other players in the business trade at 50 to 100 times 2000 revenues, vs. Maxtor's 23. The stock, now at 7 a share, is dirt cheap, says Carrino.

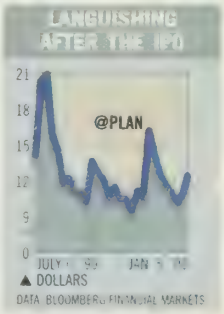
The PC maker seeking to buy Hyundai's 40% stake could be a powerful, deep-pocket partner for Maxtor in its fight with the bigger rivals and help fund its disk drive and Linux storage server business.

NET NEWBIE @PLAN: STILL UNDISCOVERED

This Internet newcomer with the unusual name of @plan (APLN) is a major player in a hot new business, but it hasn't attracted the attention other Web stocks get. Now at 12, the stock is down from its May IPO price of 14. Based on the brand-name quality of its clients and its peer's high price-earnings ratios, @plan is way undervalued, some analysts say.

@plan provides online market research. This type of online research, informally referred to as Web measurement, is evolving from just counting the number of hits a site gets to evaluating the direct impact of online ads on the product or service of a company.

"This is where @plan can distinguish itself from its competition," says Jeff Baker of SunTrust Equitable Securities, who rates the stock an "attractive long-term" holding. He says @plan's research databases provide customers with the ability to measure and define the users of specific Internet sites. And it helps buyers and sellers of ad space realize the true market value of an ad.



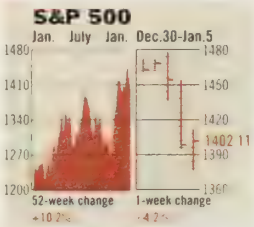
@plan's services are "highly respected in the advertising and media industries," says Baker, and are used by Saatchi & Saatchi, USWeb/CKS, eBay, Excite@Home, and CBS MarketWatch.

Based on @plan's estimated revenues for 2000 of $14.6 million, its stock trades at a price-revenue ratio of 9, compared with 14 for its peer group. Baker puts 1999 revenues at $7 million.

@plan's big rival is Media Metrix, which has more than 500 clients. Its stock has a market cap of $850 million vs. @plan's $134 million. Bear Stearns analyst Matthew Esh thinks @plan will do well despite Media Metrix, the dominant name in the business. "We believe @plan's competitive position remains very strong," says Esh.

Figures of the Week

STOCKS



U.S. MARKETS	Jan. 5	Week	% change Year-to date	Last 12 months
Dow Jones Industrials	11,122.7	–3.2	–3.3	19.5
Nasdaq Composite	3877.6	–4.1	–4.7	72.2
Nasdaq 100	3507.3	–4.9	–5.4	84.3
S&P MidCap 400	426.4	–3.6	–4.1	9.2
S&P SmallCap 600	188.2	–3.7	–4.9	6.7
S&P SuperComposite 1500	294.9	–4.1	–4.5	12.2
SECTORS				
S&P/BARRA Growth	844.4	–4.8	–4.8	20.0
S&P/BARRA Value	584.6	–3.5	–4.3	4.3
S&P Basic Materials	138.9	0.7	0.5	21.8
S&P Capital Goods	1042.4	–5.5	–6.1	17.9
S&P Energy	818.5	–2.1	–1.9	14.2
S&P Financials	121.0	–8.3	–9.0	–8.2
S&P REIT	72.7	–0.5	–1.3	–15.4
S&P Transportation	573.6	–3.7	–3.9	–15.5
S&P Utilities	229.4	1.7	1.0	–11.4
GSTI Internet	697.0	–4.1	–2.2	105.4
Morgan Stanley Cyclical	566.4	–2.3	–3.3	16.9
PSE Technology	910.0	–5.0	–6.4	96.7

GLOBAL MARKETS	Jan. 5	Week	% change Year-to date	Last 12 months
S&P Euro Plus	1450.1	–4.6	–6.6	
London (FT-SE 100)	6535.9	–3.6	–5.7	
Frankfurt (DAX)	6502.1	–5.2	–6.6	
Tokyo (NIKKEI 225)	18,542.6	0.0	–2.1	
Hong Kong (Hang Seng)	15,846.7	–6.4	–6.6	
Toronto (TSE 300)	8119.4	–3.9	–3.5	
Mexico City (IPC)	6764.3	–3.5	–5.1	

FUNDAMENTALS	Jan. 4	Week ago	Y
S&P 500 Dividend Yield	1.20%	1.15%	1
S&P 500 P/E Ratio (Trailing 12 mos.)	31.1	32.4	3
S&P 500 P/E Ratio (Next 12 mos.)*	24.0	25.4	2
First Call Earnings Surprise*	19.18%	4.79%	9

*First Call Corp.

TECHNICAL INDICATORS	Jan. 4	Week ago	Re
S&P 500 200-day average	1431.1	1342.8	Po
Stocks above 200-day average	25.0%	27.0%	Po
Options: Put/call ratio	0.46	0.45	Neg
Insiders: Vickers Sell/buy ratio	0.66	0.61	Po

COMMENTARY

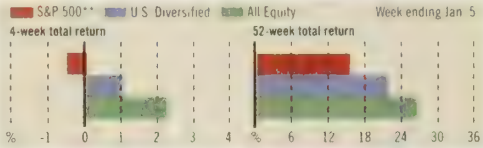
On the first trading day of the millennium, Jan. 3, the Nasdaq rose 1.5%, to a record 4131, led by tech shares. The S&P 500 and Dow both fell. But the next day, the Nasdaq plunged 229 points, or 5.6%. The Dow fell 360 points, or 3.2%, and the S&P 500 sank 56 points, or 3.8%. Tech shares led the route. Blame interest-rate fears.

Data: Bloomberg Financial Markets

BEST-PERFORMING GROUPS	Last month %		Last 12 months %
Metals	28.2	Instrumentation	113.8
Health-Care Services	21.9	Aluminum	97.6
Aluminum	19.7	Communications Equip.	96.3
Instrumentation	14.6	Metals	81.3
Pollution Control	11.0	Semiconductors	73.4

WORST-PERFORMING GROUPS	Last month %		Last month
Major Regional Banks	–19.1	Pollution Control	–5
Money Center Banks	–17.2	Tobacco	–5
Savings & Loans	–16.2	Office Equip. & Supplies	–5
Toys	–14.8	Manufactured Housing	–4
Soft Drinks	–13.5	Specialty Printing	–4

MUTUAL FUNDS



Data: Morningstar, Inc. **Vanguard 500 Index fund

EQUITY FUND CATEGORIES

Leaders Four-week total return	%	Laggards Four-week total return	%
Diversified Emerging Mkts.	13.8	Financial	–7.4
Diversified Pacific/Asia	12.1	Large-cap Value	–2.7
Pacific/Asia ex-Japan	11.5	Utilities	–1.1
Technology	8.3	Mid-cap Value	–1.0
Japan	7.8	Domestic Hybrid	–0.5

Leaders 52-week total return	%	Laggards 52-week total return	%
Technology	127.5	Financial	–8.3
Japan	117.7	Real Estate	–6.6
Diversified Pacific/Asia	98.8	Precious Metals	–0.1
Pacific/Asia ex-Japan	79.4	Small-cap Value	0.4
Diversified Emerging Mkts.	71.3	Large-cap Value	1.6

INTEREST RATES

KEY RATES	Jan. 5	Week ago	Year ago
MONEY MARKET FUNDS	5.39%	5.39%	4.75%
90-DAY TREASURY BILLS	5.43	5.23	4.47
1-YEAR TREASURY BILLS	6.04	5.93	4.53
10-YEAR TREASURY NOTES	6.60	6.40	4.73
30-YEAR TREASURY BONDS	6.62	6.45	5.17
30-YEAR FIXED MORTGAGE†	8.16	8.10	6.84

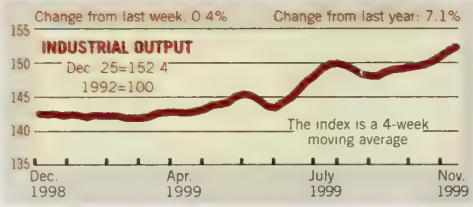
BLOOMBERG MUNI YIELD EQUIVALENT

Taxable equivalent yields on AAA-rated, tax-exemp municipal bonds, assuming a 31% federal tax rat

	10-yr. bond	30-yr. b
GENERAL OBLIGATIONS	5.13%	5.90
TAXABLE EQUIVALENT	7.43	8.55
INSURED REVENUE BONDS	5.33	6.21
TAXABLE EQUIVALENT	7.72	9.00

†BanxQuote, Inc.

BW PRODUCTION INDEX



Information on each of the index components is at www.businessweek.com.
BW production index Copyright 2000 by The McGraw-Hill Companies

The production index was up in the week ed Dec. 25. The unaveraged index, at 1 posted a 1% increase from the previous w figure of 151.9. After seasonal adjustment, freight traffic soared 2.5% for the week, and miles jumped 19.6% over the same week a ago. Production was up for the other co nents of the index as well: steel (0.4%), (0.6%), trucks (2.8%), electric power (2. crude oil (1.1%), and coal (1.7%). Lumber put was unavailable due to the holidays.

THE WEEK AHEAD

EXPORT-IMPORT PRICES *Wednesday, Jan. 12, 8:30 a.m. EST* ▶ Export prices likely rose 0.2% in December, while import prices were up 0.3%, says the median forecast of economists polled by Standard & Poor's MMS, a unit of The McGraw-Hill Companies. In November, export prices rose 0.2%, while costlier oil lifted import prices by 0.5%.

RETAIL SALES *Thursday, Jan. 13, 8:30 a.m. EST* ▶ Retail sales probably increased a hefty 0.8% in December, after a 0.9% gain in November. That's suggested by strong results from weekly retail surveys. Excluding auto sales, store receipts likely increased 0.8% on top of a 0.4% November rise.

PRODUCER PRICE INDEX *Thursday, Jan. 13, 8:30 a.m. EST* ▶ Producer prices for finished goods likely increased 0.2% in December, the same gain posted in November. Excluding food and energy, core prices probably were up a small 0.1% last month after no change in November.

CONSUMER PRICE INDEX *Friday, Jan. 14, 8:30 a.m. EST* ▶ The S&P MMS median forecast projects that consumer prices for goods and services advanced by 0.2% in December, following a 0.1% gain in November. Core prices, which exclude food and fuel, likely rose 0.2%, the same small increase reported for November.

BUSINESS INVENTORIES *Friday, Jan. 14, 8:3 a.m. EST* ▶ Inventories at factories, wholesalers, and retailers likely rose 0.3% in No vember after October's 0.2% gain.

INDUSTRIAL PRODUCTION *Friday, Jan. 14, 9:15 a.m. EST* ▶ Output at factories, mines and utilities likely grew 0.3% in December That follows a 0.3% gain in November. Operating rates probably averaged 81%.

BusinessWeek ONLINE

For more investment data and the components of the production index, visit www.businessweek.com.

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Important Information about NICOTROL® Inhaler
Please Read Carefully.

Patient information about NICOTROL® Inhaler [illegible] place of discussions between you and your doctor. You and your doctor should discuss NICOTROL® Inhaler as part of your overall plan to stop smoking. Your doctor has prescribed the NICOTROL® Inhaler for your use only. Do not let anyone else use your NICOTROL® Inhaler.

What is the NICOTROL® Inhaler? NICOTROL® Inhaler is indicated as an aid to smoking cessation. It helps you [illegible] your urge to smoke. Success in quitting will [illegible] such as the NICOTROL® Inhaler [illegible] People who use NICOTROL® Inhaler with a comprehensive behavioral smoking cessation program are more successful in quitting smoking. This program can include support groups, counseling or specific behavior change techniques as well as the NICOTROL® Pathways to Change® self-help materials. Call 1-800-699-5765 if you did not get your free Pathways to Change® handbook from your doctor.

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When should I stop smoking? Stop smoking as soon as you start using the NICOTROL® Inhaler.

How long should I use the NICOTROL® Inhaler? Do not use the NICOTROL® Inhaler longer than 6 months.

Can I smoke while using the NICOTROL® Inhaler? Do not smoke or use any other tobacco products, or other products containing nicotine, at any time while using the NICOTROL® Inhaler.

What else do I need to discuss with my doctor? Tell your doctor about any medicines you are taking – the dosages may need to be changed. Check with your doctor before taking any new medicine while using the NICOTROL® Inhaler.

Are there special concerns for women? Do not use if you are pregnant (or think you may be pregnant) or nursing unless your doctor tells you to do so. Nicotine in any form can cause harm to your unborn baby. Only you and your doctor can decide if the benefits of using the NICOTROL® Inhaler to stop smoking outweigh the risk of using this medicine.

What are the possible side effects of the NICOTROL® Inhaler? Like all prescription drugs, the NICOTROL® Inhaler may cause side effects. Many people experience mild irritation of the mouth or throat, and cough when they first use the NICOTROL® Inhaler. Stomach upset may occur. In clinical studies, the frequency of cough, mouth or throat irritation declined with continued use of the NICOTROL® Inhaler.

Is there a chance I could become addicted to the NICOTROL® Inhaler? Nicotine from any source can be toxic and addictive. Dependence might occur from transference of tobacco-related nicotine dependence to the NICOTROL® Inhaler.

Can a nicotine overdose occur with the NICOTROL® Inhaler? Nicotine overdose can occur. If symptoms of overdose occur, call a doctor or Poison Control Center immediately. Overdose symptoms include: bad headaches, dizziness, upset stomach, drooling, vomiting, diarrhea, cold sweat, blurred vision, hearing difficulties, mental confusion, weakness and fainting.

How should I store the NICOTROL® Inhaler? When not in use always store mouthpiece and cartridges in plastic case, out of reach of children and pets. Store cartridges at room temperature, not to exceed 86°F. If you keep cartridges in the car, be careful, interiors heat up quickly. Protect from light. Clean mouthpiece regularly with soap and water. Keep the NICOTROL® Inhaler out of reach of children and pets. This product is not child-resistant. The NICOTROL® Inhaler can cause serious illness in children and pets – even in very small amounts. If a child chews on or swallows NICOTROL® Inhaler cartridges, call a doctor or Poison Control Center. After a cartridge is used, throw away out of reach of children and pets. Even used cartridges contain enough nicotine to seriously harm children and pets. The Patient Information leaflet provides a summary of information about the NICOTROL® Inhaler. If you have any questions or concerns about either the NICOTROL® Inhaler or smoking cessation, talk to your doctor. In addition, talk to your pharmacist or other health-care provider.

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DON'T TAKE ECONOMIC GROWTH FOR GRANTEI

The campaign season is upon us, and to judge from the debate so far, most of the Presidential candidates, as well as the incumbent himself, are entirely too sanguine about the economy. Voters, buoyed by a tight job market and high stock prices, rank the health of the economy fifth among top issues, far behind Social Security, health care, education, and taxes. So politicians are taking economic growth for granted, too. They shouldn't.

There were many surprises in the early and middle years of the current business expansion, and as it approaches its record ninth year and begins to show its age, there are certain to be surprises as well. A slowdown in technology investment, a sharp fall in the stock market, a foreign currency crisis, or any number of unforeseen things could shake the foundation of the current expansion, which is powered by high-tech spending and globalization. Politicians should be discussing how to maintain the momentum of growth and prosperity, not assuming that they will continue indefinitely.

What are the government policies needed to maintain current prosperity? Husbanding the budget surplus at a time of high consumer spending makes sense. There will certainly come a time when the business cycle turns down, and that decline could be vicious. The high-tech sector now accounts for a quarter to a third of all U.S. growth, and should it weaken, the economy could fall sharply. At that point, significant cuts in marginal income-tax rates would have the biggest impact in rejuvenating the economy.

Rebuilding support for free trade is critical as well. G alization has probably played as important a role in gene ing growth in the '90s as tech spending. But its fruits— er inflation, higher exports, more capital, greater availab of labor—often go uncelebrated, whether it's in the street Seattle or the halls of Congress. A downturn or finar crisis that turns protectionist could become a real threa U.S. and world economic prosperity. The upcoming cong sional vote on normalizing trade with China is a key test globalization.

Making a few hard decisions on Internet policy w help maintain prosperity as well. Taxing sales on the Inte via a national sales tax is probably a bad idea. Using sop ticated software so that companies can collect sales ta for each of the 50 states is a marginally better one. But u the advent of Net shopping to rethink the sales tax enti is perhaps the best of all ideas. After all, it is among the n regressive of all taxes, hitting the poor the hardest (page Extending the moratorium on Net sales taxes would only promote high-tech growth but pressure states to re figure their tax structures.

One key policy decision to maintain prosperity has, fo nately, been made—the reappointment of Federal Rese Chairman Alan Greenspan. Greenspan has shown an insi ful feel for the dynamics of an evolving New Economy ba on higher productivity. But it is an intuition that is not yet stitutionalized at the Fed. All the more reason to h Greenspan at the monetary helm at this time.

A HIGH-TECH SURPRISE FROM JAPAN

It's a quintessential dot.com, complete with charismatic players, a spin-off with a hot stock, a huge market cap, and an amazing technology that gives millions continuous wireless Net access (no dial tone needed) for a few bucks a month. Americans proud of their high-tech acumen might naturally think it's another Silicon Valley saga. They should think again. DoCoMo is Japanese, and its success in building what may be the most advanced mobile Internet system anywhere should give the U.S. pause (page 88). A decade of leadership in personal computers and the Net may be breeding a degree of high-tech hubris that the country can ill afford.

The blunt truth is that the U.S. has been behind in wireless for some time. In the handover from analog to digital, Finland's Nokia Corp. grabbed the lead. In the new race for wireless Net access, Nokia remains ahead among telecom players. But Japan, blindsiding just about everyone, is a new contender. Investors, mostly American, are pouring funds into DoCoMo's stock, pushing its market capitalization to an astonishing $335 billion, larger than Toyota or Sony.

DoCoMo's success signals a changed, more innovative Japan. In the '90s, the U.S. viewed Japan the way Ja looked at America in the '80s—as uncompetitive, lagging new products and fresh ideas. The Japanese were wr then. Americans risk making the same mistake now.

DoCoMo's chief executive, Keiji Tachikawa, is part of a generation of Japanese innovators. The most famous, course, is Masayoshi Son, head of Softbank, who seeded hoo! Inc. and a whole slew of U.S. Net startups. Some, Son, are setting up their own companies. Others, Tachikawa, with a PhD in engineering from University Tokyo and an MBA from MIT, are building independent o ations inside large corporations than can be spun off. Ja may be entering a new phase of high-tech innovation, es cially in the next generation of higher-speed, broadba wireless Net cell phones.

America and Europe should take note. No one knows mobile Net access will evolve. Both personal digital assista such as the new Palm VII, and cell phones are vying for tomers' attention. This much is certain, however: Japan technology is now key. Japan is back in the game.

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PRESENTING THE NEW INTERNATIONAL SYMBOL FOR THE INTERNET.

This symbol, of course, stands for Fujitsu. And while it's not actually the international symbol for the Internet, perhaps it should be. You see, few companies lay a greater role in bringing the world to the ernet – and the Internet to the world – than Fujitsu. Ve deliver an unsurpassed array of Internet solutions, n infrastructure to electronic commerce. Much of the ld's Internet traffic, for instance, is piped through our gh-speed optical transmission systems. Our IT olutions, from global servers to application software, are powering the new Internet economy. Wherever you look, our global IT and telecommunications expertise is giving us a leadership position in the Internet revolution.

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The Business Internet

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UNRELENTING THINKING

BusinessWeek

JANUARY 24, 2000

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If the ascendence of the Internet economy were not clear enough already, the Jan. 10 announcement of America Online's $183 billion deal to purchase Time Warner—the biggest merger ever proposed—should be taken as proof positive. Now, America Online Chief Executive Steve Case and President Robert Pittman—along with Time Warner CEO Gerald Levin—have a chance to reshape the world of information and entertainment, digital or otherwise

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Up Front

EDITED BY ROBERT McNATT

TALK SHOW "There are some things worth defending.... Your country is one of them"
—*First ever national help-wanted ad for the U. S. Secret Service*

MINT CONDITIONS

ANOTHER DAY, ANOTHER DOLLAR

STILL SMARTING FROM THE hostile public reception of the Susan B. Anthony silver dollar, introduced two decades ago, U. S. Mint Director Philip Diehl is hustling to ensure that the soon-to-be-released golden $1 coin doesn't also join the Edsel/New Coke marketing hall of shame.

NEW BUCK: *Sacagawea replaces Susie B.*

The government has joined forces with a handful of large corporations for promotional tie-ins for the new coin, which features Sacagawea, the Shoshone woman who helped the Lewis and Clark expedition. Wal-Mart Stores, for example, has signed an agreement that lets it circulate the coin at its 2,600 outlets a few days before the dollar's Feb. 1 general release. General Mills, meanwhile, is inserting the golden dollar in one of every 2,000 boxes of Cheerios.

Such corporate partnerships are a novel concept at the mint, which launched the vilified "Susie B." in 1979. That silver coin was easily confused with a quarter, and the public hated it. "The Treasury Dept. was frankly naive 20 years ago," says Diehl. "What we're doing is preparing the market for a product launch—the same way a national soft-drink manufacturer or auto maker would." Diehl is hoping that the new coin's prospects are as golden as its color. *Richard S. Dunham*

AIRLINES

COFFEE, TEA—MAYBE EVEN A MEAL

GRUB'S UP: *Like old times?*

FIRST IT WAS AVERAGE FOOD. Then it was food in a basket. Then, too often, it was no food at all. But meal service on airlines is improving. Airline prospects have generally risen a bit recently, but so too have competitive pressures. So three big U.S. carriers are upping the quota of vittles per flyer starting this month, finally heeding passenger complaints. As one airline exec belatedly discover "People expect to be fed."

Northwest has added $ million to its $350 million f budget, putting meals on 2 more flights. On the D troit-to-Boston run, example, passengers served a cold lunch stead of just bevera service. Continental increased its food bud by 8%, to $300 million. flights of 500 or fe miles, first-class custom might now get a c snack plate with chic breast and Brie. And Delta, the breakfast "w dow" has been expanded two hours. United and Am ican are increasing their f budgets, but mainly for fa er food, not for more mea

The message? "Nobo flies for the meal," said G Franson, director of food s vice for Northwest Airlin "However, if you are dis pointed, you may not co back." *Dennis Bla*

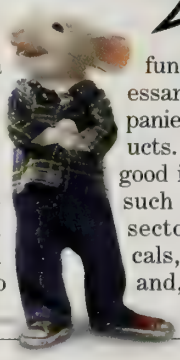
STREET NEWS

A FUND EVEN YOUR PET COULD LOVE

HERE'S AN INVESTMENT THAT won't send anyone's fur flying. Salomon Brothers Asset Management is set to roll out a mutual fund, The Humane Equity Fund, that won't invest in companies not deemed animal-friendly by the Humane Society of the U.S.

The society, which claims 7 million supporters, approached Salomon Brothers a year ago about establishing the fund. Says Humane Society CFO Tom Waite: "We felt a need for an investment vehicle underwritten by a major company with an animal-friendly bent." The group made its case. The society will kick in $8 million to start up the fund. Investors can buy in for $1,0

Some investors belie that funds with both so and investment agendas derperform other funds. manager Chad Graves s that a model looking at three- and five-year perf mance of portfolios screen for animal friendliness



better th more broadly ba funds. Graves isn't n essarily interested in co panies that make pet pr ucts. He's looking for a good investment, but not such animal-unfrien sectors as pharmaceu cals, consumer produ and, naturally, hunti gear. *Roy Furch*

THE LIST CORPORATE GIVING

Merck continued its reign in 1998 as the top corporate philanthropist, beating its '97 total of $190.3 million. Much of its largess, like the other drug outfits listed, consists of pharmaceuticals donated to developing countries. Of the top 10, only Microsoft, Intel, and GM did not exceed the previous year's level.

1. MERCK	$221.0*
2. JOHNSON & JOHNSON	176.2
3. PFIZER	123.9
4. ELI LILLY	121.4
5. IBM	116.1
6. MICROSOFT	104.7
7. INTEL	101.0
8. BANK OF AMERICA	91.5
9. PROCTER & GAMBLE	73.2
10. GENERAL MOTORS	71.1

*Figures (in millions) indicate total giving for calendar 1998, except for Microsoft, whose fiscal year ended June 30. DATA: THE TAFT GROUP

"$79,500 going once, going twice..."

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Up Front

CITY LIFE

SAY *KONICHIWA* TO BROADWAY

LIKE CLOTHES, MUSIC, AND cars, cities can be in or out of fashion. Right now, New York is "in," especially among twentysomething Japanese.

Twenty years ago, young Japanese came to New York to strike it rich in finance or real estate. Now, however, they're coming to the city for the arts—dance, fashion, film, and design. Jobs are scarce at home because of the difficult economic situation, and the bohemian expatriate life looks better than ever. At the Broadway Dance Center, for example, Japanese students account for between 30% to 40% of the school's 5,000-strong student body, far more than even five years ago. The number of Japanese at the Parsons School of Design nearly tripled, to 144 currently, from only 55 in 1991. And film students here are mesmerized by the success of Oscar-winning director Keiko Ibi, who studied at New York University.

GETTING FUNKY: *Japanese dancer*

The Big Apple's dip in crime is especially important to Japanese newcomers. "It is no longer a city with that scary feeling," says Ayumi Sato, 26, a dance center student. So, bye-bye Tokyo, and hello East Village. It's an old story being played out yet again. *Miki Tanikawa*

BON APPETIT

A CHEF'S HAT FOR THE MAN WITH THE STAR

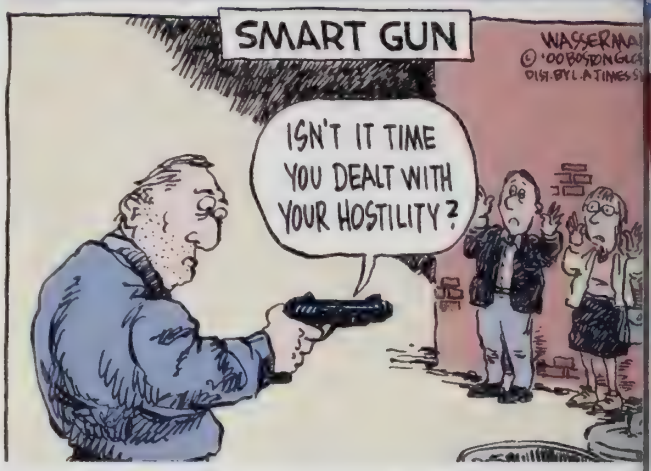
CAN A FINE RESTAURANT AND filling station share the same location without the inevitable jokes about getting gas? Perhaps, if Bill Morrow and Roy VanDoorn have their way. The two restaurateurs have spent $4 million to open Richmond's Market Cafe in Virginia's capital. It's a popular restaurant, despite a seeming drawback. The 225-seat eatery and gourmet take-out shop share premises with a dozen Texaco gas pumps.

FILL 'ER UP: *No ordinary truck stop*

Why put all that together? "We decided one of the great professional challenges is the integration of a great restaurant with everyday necessities," says VanDoorn. The food is prepared by the former head chef of a nearby four-star resort.

It has become chic to dine on crab cakes or pesto grilled chicken at the Market Cafe. The owners say they seat up to 600 people at lunch, the biggest meal of the 24-hour operation. Texaco has rated the concept highly, and other convenience-store operators have shown interest. Offshoots may be coming. "A one-off is an interesting idea," says VanDoorn. "Now, can we do it 10 times? Can we do it 50 times?" Then again, patrons may want to know, "Can you change my oil during dessert?" *Roy Furchgott*

DRAWN & QUARTERED



PET PROJECTS

THE CAT'S MEOW FOR OLD PETS

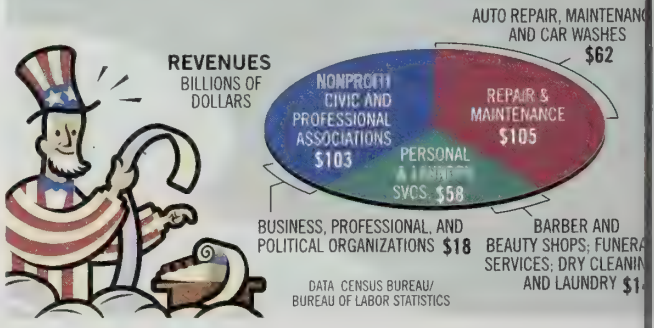
THE GUESTS AT THE GOLDEN Years Retirement Home lead an ideal life. For a fee of $10,000 they live out their remaining years scratching the furniture and sleeping in the sun. No, they're not at a frisky adults-only community in Arizona. Based in Westhampton, N.Y., Golden Years is for cats and dogs. It's part of a relatively new trend: pet retirement homes.

Maybe it's a sign that some people just have too many stock options. But the owners of animal retirement homes say they provide valuable service for tho who can no longer care f Fluffy or Fido. Jean Toomey, director of Last P in Falls Village, Conn., sa she often gets calls from torneys: "They're trying make provisions for p in their clients' will These business are usually reg tered nonprofi founded out of co passion for owne and pets. Cat N Estates in Hou ton sends o letters "signe by the pets, w are fed gourmet fo Says owner Donna Rice, you're doing this right, y don't make money." May not. But you do have to buy lot of extra slipcove *Stacey Higginbotha*

THE BIG PICTURE

SMALL TRANSACTIONS THAT ADD UP

Miscellaneous "services" in the Census Bureau's stack—from mechanics to barbers—accounted for $266 billion in revenues in 1997. The entire service sector is forecast to account for virtually all new jobs through 2008.



FOOTNOTES Amount of free time American men report having each week: **43.6** hours; American women: **38.5** hours

DATA: *TIME FOR LIFE* BY G. GODBEY AND J. ROBINS

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KUDOS ON THE NEW ECONOMY. NOW GET BACK TO WORK

I love BUSINESS WEEK, but would you people please stop beating your chests about discovering the New Economy ("Amid the euphoria, a note of caution," Editorials, Dec. 27)? You're starting to sound like Al Gore and the Internet. I'm glad you outed Alan Greenspan on productivity, but I worry that you're going to lose your ability to interpret economic data objectively. Congratulations. Now please move on.

Scott Learn
Portland, Ore.

COMET COUNTS CURSORS. IT DOESN'T TRACK USERS

According to "On the Web, it's 1984," (Technology & You, Jan. 10), our Comet Cursor software tracks "what Web sites you visited and what you did while there." That's inaccurate. All we collect is anonymous cursor counts, which we use to bill clients who pay us on a per-cursor-impression basis. Since we deliberately don't ask for names or e-mail addresses, we have no way of finding out who downloads our software or where they go while surfing the Web.

The incorrect information comes from an erroneous Associated Press account. After we clarified the matter with the AP reporter, he amended his story say we do not collect names or e-m addresses and do not profile users. E the press had already jumped on wh sounded like a sexy story: Fortunate several publications, including *The dustry Standard* and *The Christian S ence Monitor,* set the record straig The Internet has given new meani to the old Mark Twain quote: "A lie c travel halfway round the world wh the truth is putting on its shoes."

Jamie Ros
Chairm
Comet Syster
New Yo

Editor's note: BUSINESS WEEK regrets t error.

WOULD A Y2K MELTDOWN HAVE BEEN SO BAD?

Triumphant at having avoided t Y2K bug, should we pause for a nanos ond to ponder what might have be ("What wonders Y2K will bring," Tec nology & You, Dec. 27)?

With computers down and softwa impotent, could we perhaps have buil bonfire, rather than program the N Year's Eve pyrotechnics? Slow-cook in a real oven, rather than turbocharg in a microwave? Talked with a tell rather than banked electronically? Go to a play, rather than rented a vide Played with the children, rather th

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ORRECTIONS & CLARIFICATIONS

"Univision peers into cyberspace" (The orporation, Jan. 17), the number of page ews for Star Media, a Hispanic Internet ontent provider, was incorrect. The company had 1.2 billion page view in its most cent quarter.

ecause of an editing error, the photo capon in "Corporate welfare: The sound bite nd the fury" (Government, Jan. 17) was rong. It should have said: "Ethanol is on cCain's hit list, but not Bradley's"

tched them fiddle with Pokémon? ad a book, instead of our e-mail? uld the world have been worse off?

Gawen Rudder
Sydney, Australia

NEED FOR 'BIOTECH' BELS ON FOOD

You may have overlooked some key ues in "Are bio-foods safe?" (Science Technology, Dec. 20). First, the Food Drug Administration enjoys the conence of U. S. consumers precisely beuse its labeling regulations are rational d based on science. Existing FDA regations ensure that food labels will be eaningful and wisely protect against nfusing or even alarming consumers th irrelevant information.

Some California activists are now deanding labels to identify machine-harsted as opposed to handpicked tomaes. Swiss environmentalists have tried successfully to mandate a label inditing whether water used in the prossing of foods was recycled. But labels aring such information would convey relevant messages, imply incorrectly at the buyer needs to be warned of specified dangers, raise costs throughit the production and distribution ain, and detract from important inrmation that's on the label.

Labeling biotech foods will only cree chaos. Today, with more than half of S. meals eaten outside the home, the el doesn't reach most foods consumed. Britain, a new labeling law sparked a ampede by manufacturers, retailers, d restaurants to rid their products of otech foods so they wouldn't have to st warning labels on their products.

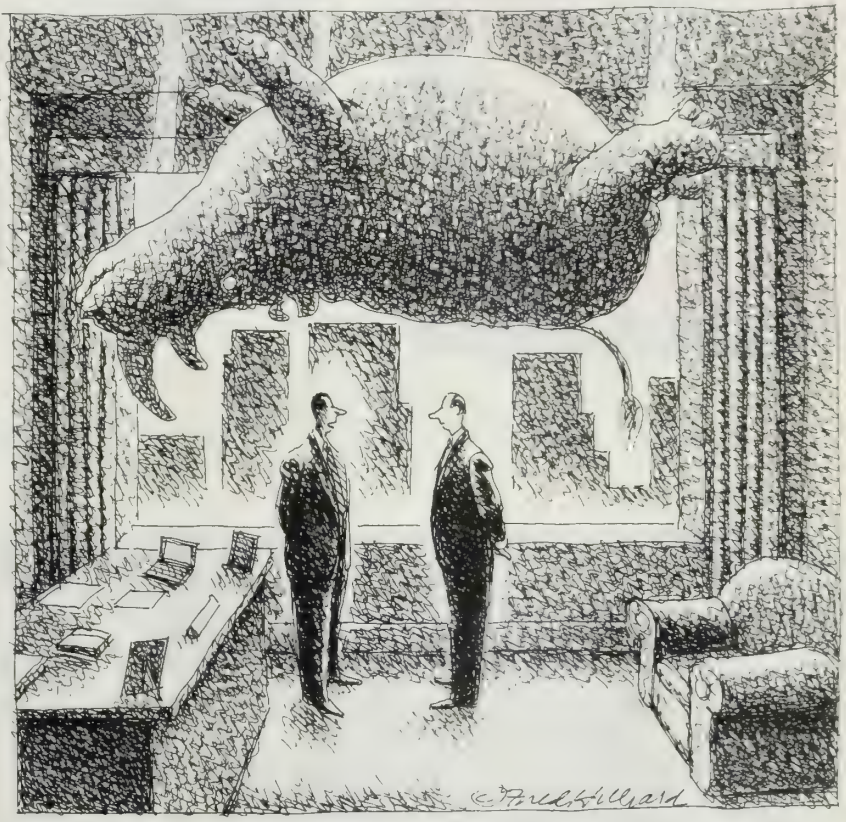
The need to segregate biotech foods, specially the thousands of processed ods that contain small amounts of devatives of corn or soybeans, would ise production costs in a low profitargin sector. If some people want to oid biotech foods, niche markets will ise—assuming that consumers are illing to pay a premium for foods cerfied to be "biotech-free," as they do for kosher, halal, and organic products. No government mandate is needed.

C. Manly Molpus
President and CEO
Grocery Manufacturers of America
Washington

DETROIT CARS: ALL TALK, NO QUALITY

U. S. auto manufacturers need to put up or shut up ("Any hope for Detroit's wallflowers?" News: Analysis & Commentary, Dec. 27). Most of the quality that Detroit talks about is purely advertising copy. Many Americans have been fooled by this advertising barrage, purchasing U. S. autos only to find that once the the car is out of warranty, it falls apart, and they are stuck with outrageous monthly payments as well as exorbitant repair bills—a double whammy few can afford.

Extended warranties are a bold way to put auto makers' money where their mouths are. Chrysler used the 7/70 war-



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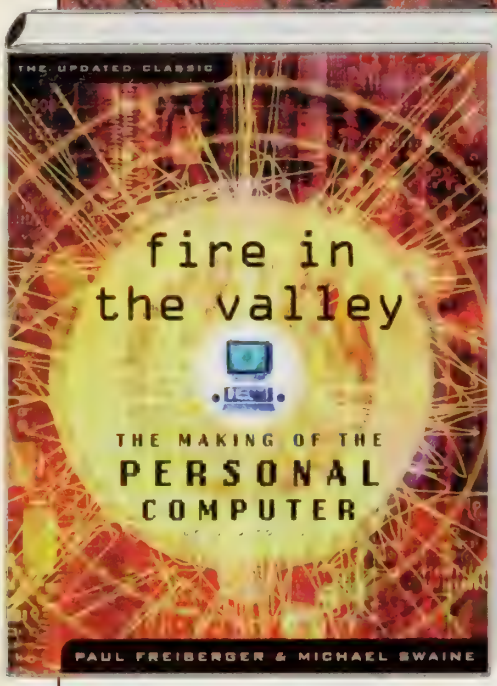
25 YEARS LATER, THE SPARK THAT IGNITED THE PERSONAL COMPUTER REVOLUTION IS STILL BURNING BRIGHT.



After more than a decade, the highly sought-after classic *Fire in the Valley* is once again available.

A fascinating and entertaining testament to the dynamic visionaries and tinkering geniuses of the personal computer era, this long-awaited edition reveals how the PC came to transform the world of today—and is destined to shape the century to come.

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Readers Report

ranty program in the early 1980s
help rescue the company. Maybe i
time to go back to the old playbook.

Phil Patters
Bixby, Ok

I am employed in one of the ma
Internet startups, I'm young, unma
ried, and childless—as are a great ma
of my peers. Many of us are passiona
about our cars. But the only persor
know who owns an American car is r
father.

Even though they may have a hi
degree of quality, American cars si
ply feel cheap, unsafe, and have
styling. I test-drove 30-plus cars befo
settling on an Audi A6 Quattro. Wh
It is solid, rugged, safe-feeling, and h
an interesting look. American cars, wh
technically sound and mechanically ac
quate, are just plain ugly, unimagin
tive, and unimpressive.

Nathan E. Tablem
Hoboken, N.

MORE BUZZ ON THE SUPER HORNET

Several years ago, I worked as
analyst for a company supporting t
Navy office that was responsible for t
F/A-18E/F, as discussed in "The (n
so) Super Hornet" (Industries, Dec. 1
Although I had little to do with th
development, I learned enough about
to realize that it was exactly what t
Navy needed to replace the F-14, A
and early model F/A-18s; some of the
early-model Hornets must be about
years old by now.

The program's critics have someho
convinced author Stan Crock that t
F/A-18E/F is "only slightly better th
its predecessor," a conclusion that
false. I remember there were sever
areas where the F/A-18C/D was b
coming deficient as the Navy's princip
fighter and attack asset for the 21
century. For one thing, I rememb
that because of the F/A-18C/D's havi
been modified over the years
strengthen structure and to incorp
rate newly developed sensors ar
weapons, it had grown so heavy
could no longer return and land on t
carrier with a full load of unexpend
weapons plus fuel reserve. The F/
18E/F solves this deficiency by po
sessing three times the ordnance-brin
back capability of the F/A-18C/D. Th
will be important in the future whe
expensive precision-strike weapons w
constitute the standard weapon loa
out for a fighter.

In addition, the Super Hornet has

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VIAGRA *is widely used*

This is one fact about VIAGRA *that most everyone is familiar with. Millions of men with erectile dysfunction* (ED) *have enjoyed more satisfying sex lives because of* VIAGRA. *But here are 7 more facts about* VIAGRA *that may be useful to you.*

VIAGRA is effective in men with all types of ED

VIAGRA improves erections in up to 4 of 5 men who take it compared with 1 out of 4 for sugar tablets, regardless of how severe their ED is, how long they have had ED, what caused it, or even how old they are. If you're not satisfied with your sex life due to poor erections during recent months, talk to your doctor. You may be suffering from mild ED—and VIAGRA can help.

VIAGRA has been extensively studied

In fact, in clinical trials of more than 3000 patients, VIAGRA was proven to be effective while having an excellent safety profile. And you can feel confident knowing that more than 250,000 doctors have written more than 14 million prescriptions for VIAGRA, as of November 1999, for more than 5 million patients.*

VIAGRA works when you need it

VIAGRA begins working in as fast as 30 minutes, but it can be taken as much as 4 hours in advance of sexual activity. A general rule is to take VIAGRA about 1 hour before sex. That way, you can use the time to get intimate with your partner. Be spontaneous. Be playful. Have fun.

VIAGRA only works when you are sexually stimulated

When a man is sexually stimulated, the arteries in the penis relax, and more blood flows into the penis, creating an erection. VIAGRA works by helping the blood vessels in the penis to relax, thereby increasing blood flow to the penis.

Seven more reasons to fee
(plus one that everyone already knows

With VIAGRA, you must be sexually aroused (physically, visually, etc) to get an erection. If you take VIAGRA and are not sexually stimulated in any way, nothing will happen.

VIAGRA is not a hormone, an herbal supplement, or an aphrodisiac. VIAGRA is a prescription medication that can improve the erectile function of most men with erection problems. So with VIAGRA, a touch or a glance from your partner can once again lead to something more.

*Data on file. Pfizer Inc, New York, NY

For more information, call 1-888-4VIAGRA or visit www.viagra.com.

Please see patient summary of information for VIAGRA *(25-mg, 50-mg, 100-mg) tablets on the following page.*

VIAGRA comes in 3 dosing strengths

With 3 different doses (25 mg, 50 mg, 100 mg), VIAGRA has a strength that works best for you. Like many medications, your doctor may have to adjust your initial VIAGRA dose if it doesn't produce the desired results or you're bothered by side effects. Do not take more VIAGRA than your doctor prescribes, and do not take VIAGRA more than once a day.

VIAGRA works best on an empty stomach

But if dinner is in your plans, you can still take VIAGRA. However, taking VIAGRA after a high-fat meal (such as a cheeseburger and french fries) may cause the medication to take a little longer to start working.

VIAGRA is well tolerated

Like all medications, VIAGRA can cause some side effects. These are usually mild and don't last longer than a few hours. In clinical trials, the vast majority of these side effects did not cause patients to stop taking VIAGRA. Some of these side effects are more likely to occur with higher doses of VIAGRA. With VIAGRA, the most common side effects are headache, facial flushing, and upset stomach VIAGRA may also briefly cause bluish vision, sensitivity to light, or blurred vision. In the rare event of an erection lasting more than 4 hours, seek immediate medical help.

VIAGRA is not for everyone. If you're a man who uses nitrate drugs, never take VIAGRA—your blood pressure could suddenly drop to an unsafe level.

Be sure to ask your doctor if your heart is healthy enough to handle the extra strain of sexual activity.

If you have chest pains, dizziness, or nausea during sex, stop and immediately tell your doctor.

good about VIAGRA

Last year, VIAGRA *helped millions of men and their partners find something that was missing from their lives. Isn't it time you found out more about* VIAGRA?

VIAGRA
(sildenafil citrate) tablets

Love life again.

Love life again.

PATIENT SUMMARY OF INFORMATION ABOUT

VIAGRA
(sildenafil citrate) tablets

This summary contains important information about VIAGRA®. It is not meant to take the place of your doctor's instructions. Read this information carefully before you start taking VIAGRA. Ask your doctor or pharmacist if you do not understand any of this information or if you want to know more about VIAGRA.

This medicine can help many men when it is used as prescribed by their doctors. However, VIAGRA is not for everyone. It is intended for use only by men who have a condition called erectile dysfunction. **VIAGRA must never be used by men who are taking medicines that contain nitrates of any kind, at any time. This includes nitroglycerin. If you take VIAGRA with any nitrate medicine your blood pressure could suddenly drop to an unsafe or life threatening level.**

What Is VIAGRA?

VIAGRA is a pill used to treat erectile dysfunction (impotence) in men. It can help many men who have erectile dysfunction get and keep an erection when they become sexually excited (stimulated).

You will not get an erection just by taking this medicine. VIAGRA helps a man with erectile dysfunction get an erection only when he is sexually excited.

How Sex Affects the Body

When a man is sexually excited, the penis rapidly fills with more blood than usual. The penis then expands and hardens. This is called an erection. After the man is done having sex, this extra blood flows out of the penis back into the body. The erection goes away. If an erection lasts for a long time (more than 6 hours), it can permanently damage your penis. You should call a doctor immediately if you ever have a prolonged erection that lasts more than 4 hours.

Some conditions and medicines interfere with this natural erection process. The penis cannot fill with enough blood. The man cannot have an erection. This is called erectile dysfunction if it becomes a frequent problem.

During sex, your heart works harder. Therefore sexual activity may not be advisable for people who have heart problems. Before you start any treatment for erectile dysfunction, ask your doctor if your heart is healthy enough to handle the extra strain of having sex. If you have chest pains, dizziness or nausea during sex, stop having sex and immediately tell your doctor you have had this problem.

How VIAGRA Works

VIAGRA enables many men with erectile dysfunction to respond to sexual stimulation. When a man is sexually excited, VIAGRA helps the penis fill with enough blood to cause an erection. After sex is over, the erection goes away.

VIAGRA Is Not for Everyone

As noted above (*How Sex Affects the Body*), ask your doctor if your heart is healthy enough for sexual activity.

If you take any medicines that contain nitrates–either regularly or as needed–you should never take VIAGRA. If you take VIAGRA with any nitrate medicine or recreational drug containing nitrates, your blood pressure could suddenly drop to an unsafe level. You could get dizzy, faint, or even have a heart attack or stroke. Nitrates are found in many prescription medicines that are used to treat angina (chest pain due to heart disease) such as:

- nitroglycerin (sprays, ointments, skin patches or pastes, and tablets that are swallowed or dissolved in the mouth)
- isosorbide mononitrate and isosorbide dinitrate (tablets that are swallowed, chewed, or dissolved in the mouth)

Nitrates are also found in recreational drugs such as amyl nitrate or nitrite ("poppers"). If you are not sure if any of your medicines contain nitrates, or if you do not understand what nitrates are, ask your doctor or pharmacist.

VIAGRA is only for patients with erectile dysfunction. VIAGRA is not for newborns, children, or women. Do not let anyone else take your VIAGRA. VIAGRA must be used only under a doctor's supervision.

What VIAGRA Does Not Do

- VIAGRA does not cure erectile dysfunction. It is a treatment for erectile dysfunction.
- VIAGRA does not protect you or your partner from getting sexually transmitted diseases, including HIV–the virus that causes AIDS.
- VIAGRA is not a hormone or an aphrodisiac.

What To Tell Your Doctor Before You Begin VIAGRA

Only your doctor can decide if VIAGRA is right for you. VIAGRA can cause mild, temporary lowering of your blood pressure. You will need to have a thorough medical exam to diagnose your erectile dysfunction and to find out if you can safely take VIAGRA alone or with your other medicines. Your doctor should determine if your heart is healthy enough to handle the extra strain of having sex.

Be sure to tell your doctor if you:

- have ever had any heart problems (e.g., angina, chest pain, heart failure, irregular heart beats, or heart attack)
- have ever had a stroke
- have low or high blood pressure
- have a rare inherited eye disease called retinitis pigmentosa
- have ever had any kidney problems
- have ever had any liver problems
- have ever had any blood problems, including sickle cell anemia or leukemia
- are allergic to sildenafil or any of the other ingredients of VIAGRA tablets
- have a deformed penis, Peyronie's disease, or ever had an erection that lasted more than 4 hours
- have stomach ulcers or any types of bleeding problems
- are taking any other medicines

VIAGRA and Other Medicines

Some medicines can change the way VIAGRA works. Tell your doctor about **any medicines** you are taking. Do not start or stop taking any medicines before checking with your doctor or pharmacist. This includes prescription and nonprescription medicines or remedies. Remember, VIAGRA should never be used with medicines that contain nitrates (see *VIAGRA Is Not for Everyone*). If you are taking a protease inhibitor, your dose may be adjusted (please see *Finding the Right Dose for You*). VIAGRA should not be used with any other medical treatments that cause erections. These treatments include pills, medicines that are injected or inserted into the penis, implants or vacuum pumps.

Finding the Right Dose for You

VIAGRA comes in different doses (25 mg, 50 mg and 100 mg). If you do not get the results you expect, talk with your doctor. You and your doctor can determine the dose that works best for you.

- Do not take more VIAGRA than your doctor prescribes.
- If you think you need a larger dose of VIAGRA, check with your doctor.
- VIAGRA should not be taken more than once a day.

If you are older than age 65, or have serious liver or kidney problems, your doctor may start you at the lowest dose (25 mg) of VIAGRA. If you are taking protease inhibitors, such as for the treatment of HIV, your doctor may recommend a 25 mg dose and may limit you to a maximum single dose of 25 mg of VIAGRA in a 48 hour period.

How To Take VIAGRA

Take VIAGRA about one hour before you plan to have sex. Beginning in about 30 minutes and for up to 4 hours, VIAGRA can help you get an erection if you are sexually excited. If you take VIAGRA after a high fat meal (such as a cheeseburger and french fries), the medicine may take a little longer to start working. VIAGRA can help you get an erection when you are sexually excited. You will not get an erection just by taking the pill.

Possible Side Effects

Like all medicines, VIAGRA can cause some side effects. These effects are usually mild to moderate and usually don't last longer than a few hours. Some of these side effects are more likely to occur with higher doses. The most common side effects of VIAGRA are headache, flushing of the face, and upset stomach. Less common side effects that may occur are temporary changes in color vision (such as trouble telling the difference between blue and green objects or having a blue color tinge to them), eyes being more sensitive to light, or blurred vision.

In rare instances, men have reported an erection that lasts many hours. You should call a doctor immediately if you ever have an erection that lasts more than 4 hours. If not treated right away, permanent damage to your penis could occur (see *How Sex Affects the Body*).

Heart attack, stroke, irregular heart beats, and death have been reported rarely in men taking VIAGRA. Most, but not all, of these men had heart problems before taking this medicine. It is not possible to determine whether these events were directly related to VIAGRA.

VIAGRA may cause other side effects besides those listed on this sheet. If you want more information or develop any side effects or symptoms you are concerned about, call your doctor.

Accidental Overdose

In case of accidental overdose, call your doctor right away.

Storing VIAGRA

Keep VIAGRA out of the reach of children. Keep VIAGRA in its original container. Store at room temperature, 59°-86°F (15°-30°C).

For More Information on VIAGRA

VIAGRA is a prescription medicine used to treat erectile dysfunction. Only your doctor can decide if it is right for you. This sheet is only a summary. If you have any questions or want more information about VIAGRA, talk with your doctor or pharmacist, visit www.viagra.com, or call 1-888-4VIAGRA.

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Readers Report

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Todd Wil
Yonkers, N

Unfortunately, the figure of $53 m
lion a copy fails to account for the t
cost of this expensive plane. In its lat
report to Congress, the Defense De
lists the total cost for 548 Super H
nets as $47 billion, so each plane
cost taxpayers almost $86 million. An
history is any guide, this troubled pl
will end up costing more than $90 m
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resulting from necessary fixes to the
deficiencies identified by the Gene
Accounting Office.

In short, the (not-so) Super Hor
program will cost taxpayers more t
twice as much as it would cost to p
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equal or superior to the E/F mod
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America's costly arms race with itse

Eugene J. Carroll
Rear Admiral, USN (R
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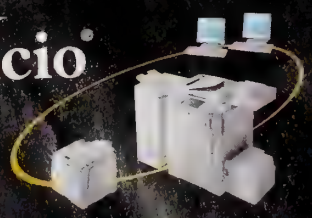

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By Paul Ormerod
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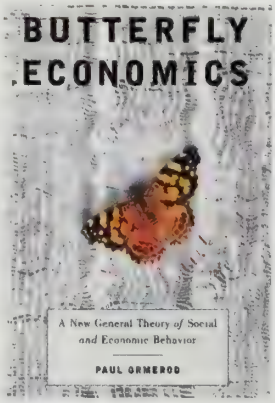
IS THE DISMAL SCIENCE DAZED AND CONFUSED?

By calling his first book *The Death of Economics*, Britain's Paul Ormerod didn't leave much room for a sequel. *Economics: Still Dead* would hardly have leapt off the bookshelves. Ormerod's solution is to announce that economics isn't dead after all—only sick. And he has some ideas for how to heal it. In *Butterfly Economics*, Ormerod expands on the main point of his well-received first book, namely that his fellow economists must shake off 19th-century determinism and accept that the world is chaotic, nonmechanistic, and unpredictable. The title comes from chaos theorists' "butterfly effect," which is the concept of snowballing: The swirls of air from a butterfly's wings in the Pacific could theoretically trigger a hurricane days later in the Atlantic.

This is a presumptuous book. Its subtitle, *A New General Theory of Social and Economic Behavior*, echoes the title that the great John Maynard Keynes gave to his masterwork, *General Theory of Employment, Interest and Money*. At bottom, though, Ormerod is arguing only that economists defy common sense by acting as if people's tastes and preferences were fixed. Conventional economics, says Ormerod, misses the obvious fact that "the behavior of an individual can be directly affected by the behavior of others. In other words, people see what others do, and may be influenced by it."

In a linear world, the size of an effect is proportional to its cause. Not so, Ormerod observes, in the nonlinear world we actually inhabit. Fads, stockmarket crashes, and avalanches are all examples of huge events set in motion by tiny causes. The craziness of the Internet is all about nonlinearity: Entrepreneurs spill red ink so they can acquire a "first-mover advantage," attain "critical mass," and then enjoy "increasing returns." By ignoring nonlinearity, forecasters constantly get things wrong—missing, for example, the contagion of fear that infected Asia and the world after the fall of the Thai baht in 1997.

There are just two problems with this book. (Actually three, if you count repetition: Most of its big points appeared in *The Death of Economics*, which was published in Europe in 1994 and the U.S. in 1997.) The first problem is that Ormerod's argument isn't as revolutionary as his book's bold title implies. Many of the people he approvingly quotes number among the most revered members of the economics Establishment, including Keynes, Adam Smith, David Ricardo, and Joseph Schumpeter, as well as such noted modern figures as Paul Samuelson, Milton Friedman, Kenneth Arrow, Paul Krugman, and Joseph Stiglitz.



The second, related problem with *Butterfly Economics* is that it doesn't—in fact, it can't—offer a fully satisfying alternative to the dunderheaded, linear approach. Recognizing the existence of nonlinearity doesn't make your forecasts come out better. It just helps you understand why forecasting is so darn hard. If fluency in chaos theory were the secret formula for soothsaying, the chaos theorists at the Santa Fe Institute in New Mexico would be trillionaires by now.

That said, Ormerod is on to something. Too many economists still waste their time on tiny tweaks and elaborations of orthodox economic models that are simply wrong. Ormerod wants to unify microeconomics and macroeconomics by showing how the aggregate behavior of an economy grows out of the interactions of individual agen people and companies. Ormerod sho off his own simple computer model o hypothetical capitalist economy. It sta out with 225 tiny companies. Over simulated 130 years, some stay sm and some get very big. The distrib tion of company size, and the avera growth rate for the economy, turn o similar to those of Western economi over the past 130 years.

To be sure, Ormerod hasn't crack the code of economic forecasting. B at least he and his fellow nonline thinkers are looking in the right pla Economists who stick to linear mod because they're more tractable are li drunks who look for their car keys u der the street lamp because the light better there.

What's more, an appreciation of "b terfly economics" helps clarify what g ernments can and cannot do to mana their economies. Mostly what th should do, Ormerod says, is steer cle of fine-tuning, which is lik ly to have unintended co sequences. Less is more, says. For instance, he cou sels governments again trying to manage the val of their currencies by pu ishing speculation. By e couraging speculation, l says, nations can get fo eign-exchange dealers dart in and out of a cu rency more often. Th way, it will never get f out of line with fundame tals. The source of this insight? Co puter models of ant colonies vacillati between two sources of food.

Governments could learn from bus ness executives, who wisely refuse to imprisoned by theory, Ormerod write And economists, he says, could lea from the great political economists yore like Adam Smith. They saw the mission as understanding society as whole, not tinkering with mathematic constructs. Ormerod isn't the first make this point. And to be fair, mo economists aren't as clueless as h makes them out to be. But despite th book's flaws, its main message is soun The tools of economics are too usef to be squandered on shadow plays.

BY PETER CO

Coy is associate economics edito

ORMEROD SAYS ECONOMISTS OFTEN OVERLOOK THE CHAOTIC AND THE UNPREDICTABLE

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Y STEPHEN H. WILDSTROM

WHAT KEEPS AOL ON TOP

:'s still the most omfy way to surf, but ome problems badly eed addressing

For years now, America Online has had a reputation for being the asiest way for novices to get n the Internet. While sohisticates dismiss AOL as he Net on training wheels," s simplicity and sheltered nvironment have helped the ompany become, by far, the orld's largest Internet service provider—nd have positioned it to ecome the globe's iggest media comany with the proosed acquisition f Time-Warner.

The competition is trying o strike back. EarthLink, ' he No. 2 ISP, nd longtime annabe Microoft Network have verhauled their offerings in a bid to trim AOL's ead. My conclusion, after hecking out the new AOL .0 for Windows and the atest packages from Earthink and MSN, is that vhile AOL could use some mprovements, it still offers he easiest on-ramp to the nternet.

The secret of AOL's sucess is that it has clung to ts roots as a pre-Internet nline service. People can get most of the content and ervices they want, including shopping, travel reservaions, chat, instant messaging, e-mail, news, and financial services, without ever leaving AOL's comfy confines.

Furthermore, the newest version of AOL's software seamlessly integrates the World Wide Web, so that often it sends you to the Web without your even realizing that it is happening. For example, some links on the stock quotes page take you to internal AOL content, and some take you to external Web sites using a version of Microsoft Internet Explorer. If the Web pages didn't load more slowly, it would be hard to tell the difference.

Installing AOL 5.0 is a snap. Most computers come with AOL software partially installed, although it will likely be version 4.0. It's possible to download the new version, but it is easiest to install from one of the Version 5.0 CD-ROMs that AOL scatters like confetti. One word of caution: The AOL software, like that from EarthLink and Microsoft, can wreak havoc on any preexisting networking setup. This isn't a concern for most people, who use only one ISP. But before installing these services on a computer that is also used to tap a corporate network, get guidance from your company's tech support people first.

My main quarrel with AOL is the inadequate mail program. While it is fine for basic text messages, it cannot display many common attachments, including Microsoft Word and Adobe Acrobat files. You have to download the attachments, then open them in the appropriate programs, an annoying inconvenience. And if someone sends you a message with multiple attachments, you may not be able to read any of them.

While AOL has surged, Microsoft Network has struggled since its 1995 launch. In its latest incarnation it essentially acts as an ISP and a portal to mostly Microsoft-produced content. MSN 5.0 sets up Internet access in a straightforward way that provides a bit more handholding than Windows' standard Internet Connection Wizard. Once you are connected, you see a home page that is similar to www.msn.com, the default home page for Internet Explorer. An appealing feature is MSN search, one of the better search engines on the Web, though you need not be an MSN subscriber to use it. MSN also sets up an e-mail account for you using Microsoft Outlook Express, a very able program that may intimidate Net novices.

EarthLink, which is in the process of merging with Mindspring, doesn't pretend to offer much original content. One modest innovation is the "side car," a panel in a modified Internet Explorer browser that gives you news and stock tickers, e-mail notification—and ads.

TRY AGAIN. EarthLink provides a multimedia setup procedure that offers good, simple audio and video guidance. I found one annoyance: When an initial call failed to go through, the program made me reenter all my registration data before I could try again. The mail program lacks the bells and whistles of Outlook Express but was simpler to use, while providing much better handling of attachments than AOL.

All of these service-software combinations make it easy to set up and use the Internet even if you have no experience. But AOL remains the champ at providing tons of content in a comfortable, nonthreatening environment. If they fixed the mail program, and maybe got rid of some annoying ads, they would deserve to maintain their lead well into the new millennium.

ON-RAMPS TO THE NET

SERVICE	SYSTEMS SUPPORTED	MONTHLY COST
AOL	Windows, Mac	$4.95 plus $2.50 for each hour over three to $21.95 for unlimited use
EARTHLINK	Windows, Mac	$19.95 for unlimited access
MSN	Windows	$21.95 for unlimited access

DATA: COMPANIES

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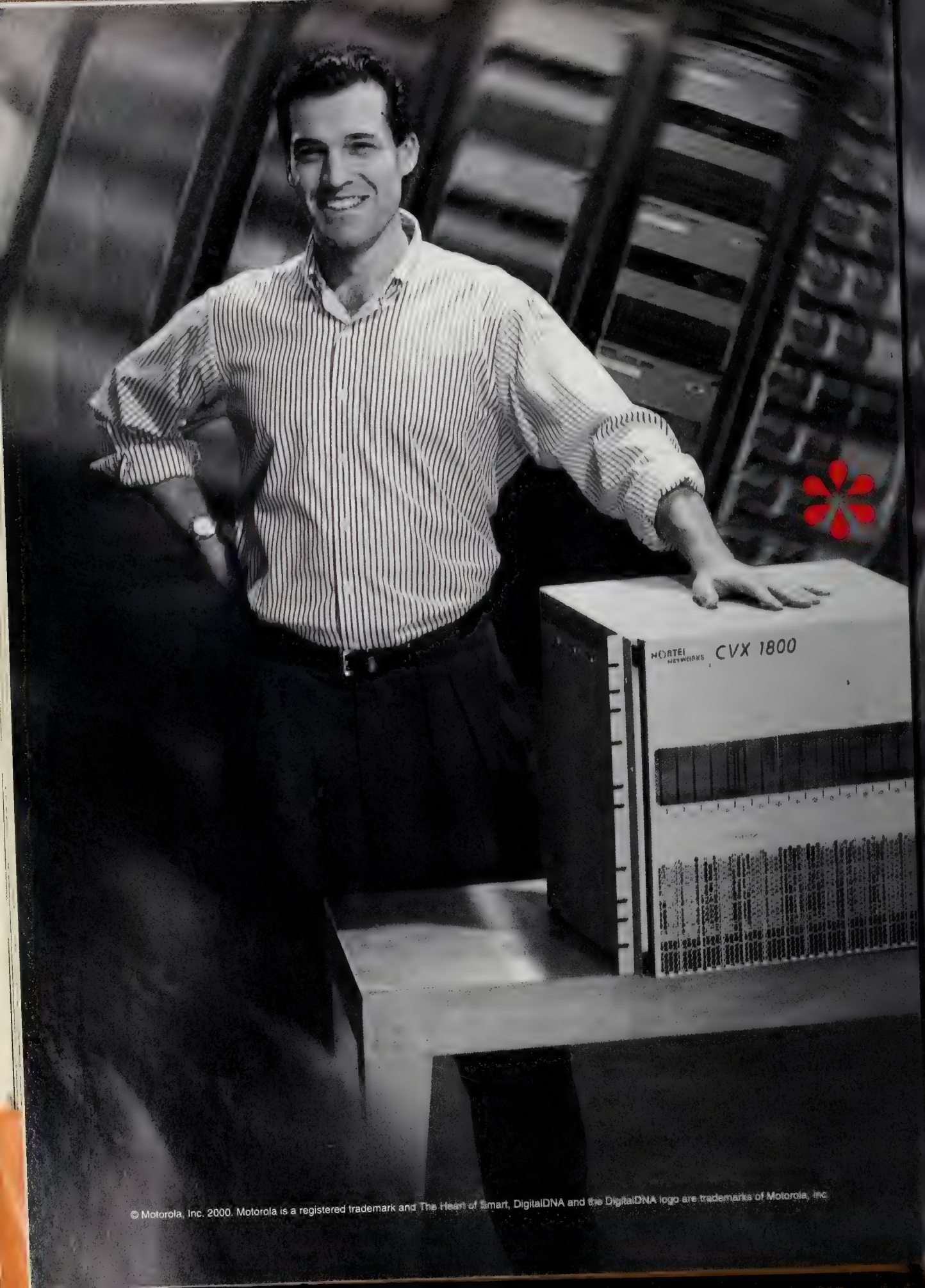

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BY ROBERT KUTTNER

PIRACY ON THE NET: WHY IT NEEDS MORE POLICING

UNHEALTHY CHOICE: The alternative to public regulation will be far worse. Private parties will enforce their own contracts, making a uniform code impossible

Robert Kuttner is co-editor of *The American Prospect* and author of *Everything for Sale*

All over America, computer enthusiasts have a marvelous new way to assemble record collections—MP3 files. These are highly compressed data files that allow an ordinary computer to download music from the Internet. You can sign up with a chat room that promotes exchanges of MP3 files and search for virtually any compact disk or tape that exists. (Within days of release, someone puts it into cyberspace.) Then you download the files. Voila! You can carry around hundreds of albums on your laptop, and never buy another CD.

Is this legal? So far it is. In principal, you are infringing on somebody's copyright, but so far the courts have held that neither you nor the manufacturer of an MP3 player is violating any law. The chat room is effectively colluding in an act of piracy, but it can't be prosecuted any more than the phone company can be if somebody uses the telephone to plan a bank robbery. How much money is this costing the music industry? Probably billions.

POLARIZED. What is happening with music is also happening with software and magazine and newspaper articles, and will soon happen with movies, as video-streaming technology becomes cheap and sophisticated. But does any of this really matter?

Here, the world divides into two polarized camps. The libertarians, declaring that "information wants to be free," say it is futile to try to build walls or collect tolls. This camp includes not only Net philosophers and users accustomed to a free Internet but also many promoters of electronic commerce and its attendant technology. On the other side are record producers, performing artists, authors, the movie industry, and many software companies, who consider Internet pirates the bandits of the Information Superhighway.

Some, like Microsoft Corp., are on both sides of the divide. While Bill Gates's lawyers vigorously go after pirated software, Microsoft is promoting its windows media player to work with the next generation Walkman style MP3 players that will allow consumers to play music collections that are invariably pirated. But how different is this, really, from past generations of kids who taped songs off the radio, students who photocopied book chapters, or movie buffs who taped videos, notwithstanding the ominous "FBI Warning" posted by the video-rental shop?

Very different, say the alarmists, because in the past electronic piracy was a hassle, ar the quality tended to deteriorate with tl copy. After the novelty wore off, it wasr worth the trouble, so the pirated mark share was trivial. With the Internet, search just take a few keystrokes, the copies a perfect, and piracy will become the norm.

Not different at all, say the libertarian Ever since the printing press, authorized i tellectual property has always had leaks, ar on balance the leaks only stimulated ne technology and markets.

The libertarians argue that record produ ers and Hollywood studios are largely par sites anyway. They imagine a world in whic a recording artist or independent filmmak can connect directly with a mass audienc with no middleman whose main function marketing hype. Many Internet pioneers, as matter of principle, distribute software at r charge. But this utopian vision of a wor where everyone is an inspired amateur beg the question of how the professional filn maker, actor, writer, or producer is suppose to make a living.

An Internet that is a safe harbor for p rates will gradually erode intellectual-pro erty protections as we have known them sin the British crown first invented modern cop right nearly three centuries ago. Ironically, e trepreneurs with an ideological aversion t government are now begging government f more regulation. Under lobbying from th entertainment and software industries, cop right law was tightened in 1998 to cover th Internet. But these new protections are a but unenforceable technologically.

Any serious policing of Internet pirac would require much tighter regulation, of th kind that has been anathema on the Ne One approach would collect tolls from en users, on the model of royalties paid when ra dio stations spin disks or theaters stage pe formances. Logically, computers would have t carry some kind of monitoring devices to de tect copyrighted matter. How society dea with this dilemma has the most profound im plications, and paradoxes abound. As owner of intellectual property seek to protect the rights, the alternative to public regulatio may be a far worse balkanization of the In ternet by private interests enforcing privat contracts. An unregulated Net is also a men ace to personal privacy. The Wild West day of the Net are probably numbered.

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BY GENE KORETZ

AMERICA'S JOBS ARE CHANGING

But less than you might think

Although the creative destruction affecting the U.S. economy has caused some radical changes in job requirements and definitions, the underlying structure of the labor market is evolving at a far less dramatic pace. That seems to be one implication of the Labor Dept.'s latest projections, which look ahead to the final years of the next decade.

U.S. JOB GROWTH: THE COMING DECADE

OCCUPATIONS PROJECTING BIGGEST GAINS	ADDED JOBS 1998-2008 THOUSANDS	REPLACEMENTS* 1998-2008 THOUSANDS
SYSTEMS ANALYSTS	577	39
RETAIL SALESPERSONS	563	1,375
CASHIERS	556	1,394
GENERAL MANAGERS & TOP EXECUTIVES	551	589
TRUCK DRIVERS	493	426
OFFICE CLERKS	463	837
REGISTERED NURSES	451	343

*Due to retirements and deaths

DATA: BUREAU OF LABOR STATISTICS

Between 1998 and 2008, say the experts, the economy will add 20.3 million jobs. While almost all of the gains will be in the services-producing industries, the goods-producing sector won't lose jobs, as rising construction employment offsets declines in mining and manufacturing.

Aided by strong productivity growth, manufacturing will maintain its share of national output and shed only 89,000 jobs, compared with 542,000 in the prior decade. Federal payrolls will continue to shrink, but states and localities are expected to add some 2 million jobs.

As in the prior decade, two of the fastest-growing and largest sectors are expected to be health services and computer and data-processing services, whose gains are pegged at 2.9 million and 1.9 million jobs, respectively. Also, the temporary help industry is expected to rise by more than 40%, to 4.6 million.

Looking at individual occupations, all of the five fastest-growing are computer related, with the third-fastest—systems analyst—also posting the heftiest projected growth in numbers of workers. Some occupations, such as those related to retail trade, will also generate large numbers of additional positions because of their relative size in the economy (chart).

The shifting employment picture will necessarily entail an upgrading in workers' skills. Labor Dept. economists estimate that 40% of job growth from 1998 to 2008 will be in occupations requiring at least a two-year associate's degree. And a third will be in occupations requiring a bachelor's degree or higher.

But that doesn't mean that the educational profile of the labor market will change dramatically. Of some 55 million job openings created by both growth and replacement needs over the decade, job growth itself will account for just 37%, with 63% created by retirements and deaths. Thus, the percent of jobs in the economy requiring at least an associate's degree is expected to rise only modestly, from 25.5% to 27.3%.

ARE THE RICH GETTING STINGY?

Giving isn't growing with incomes

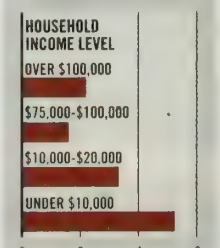
In recent years, Americans at the high end of the income scale have become a lot wealthier. So you might think they'd be happily shelling out a bit more of their incomes to charities. Not so, according to the latest survey by the Independent Sector, a coalition of voluntary organizations.

The nationwide survey found that the 48% of poor households (incomes under $10,000) that made gifts in 1998 were the most generous, contributing an average of 5.2% of their incomes. At the same time, the 89% of affluent families making gifts (incomes above $100,000) ponied up just 2.2% of their incomes.

But the biggest surprise was the change in relative generosity. Since 1993, the poorest group has nearly doubled its average donation as a percent of income, while the next lowest (incomes of $10,000 to $20,000) increased its average gift from 2.3% to 3.3%. In contrast, the two highest income groups (those over $100,000, and those from $75,000 to $100,000) reduced theirs from 3.2% and 2% of their incomes, respectively, to just 2.2% and 1.6%.

SOME GIVE MORE –AND SOME LESS

AVERAGE CHARITABLE CONTRIBUTION 1998*



*OF HOUSEHOLDS MAKING CONTRIBUTIONS

DATA: INDEPENDENT SECTOR

THE TAMING OF THE ECONOMY

Why GDP growth is less erratic

Over the past 15 years, somethin remarkable has happened to t growth path of the U.S. economy. A economists Margaret M. McConnell, P tricia C. Mosser, and Gabriel Per Quiros observe in a new Federal R serve Bank of New York study, sin 1983, the volatility of quarterly gro domestic product growth—that is, t degree to which it fluctuates from qua ter to quarter—has been only half th of the preceding 25 years.

What's behind this newfound stabilit Some experts think it reflects a firm hand on the monetary tiller and small economic shocks—a combination "good policy and good luck." Others cre it structural changes, such as innov tions in technology and regulatory shif

To test the latter view, the researche analyzed the behavior of the major co ponents of GDP in two periods: 1959- and 1984-98. While all of them show more stable growth in the more rece period, they found striking declines the variability of residential investmen and of imports and exports. In additio the single biggest contributor to t overall decline in GDP volatility turn out to be inventory investment.

Just as striking, note the authors, the fact that each of these componen has been affected by positive structur changes. The elimination of interest ra ceilings on savings bank deposits ar the development of mortgage-backe securities, for example, have helped pr vide a more stable supply of funds f home purchasers. And lower trade ba riers, plus shifts in the composition imports away from commodities and exports toward services, seem to hav made trade growth less erratic.

Similarly, inventory investment ha been affected by new management tec niques. The adoption of just-in-time co puter-based inventory controls ha helped companies maintain both lowe and less volatile stock levels.

The bottom line is that structur changes in recent decades do seem have reduced the volatility of sever key economic sectors—and thus promo ed overall stability in economic growt And while that doesn't mean that Fe Chairman Alan Greenspan hasn't playe a big part in the economy's steadier pat it does suggest that some of the in provement may last long after he's le the monetary scene.

JAMES C. COOPER & KATHLEEN MADIGAN

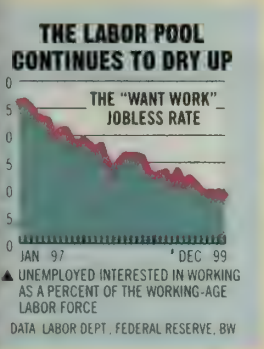
;O HARD TO GET ;OOD HELP THESE DAYS

he upward pressure on wages from tight labor could spark a Fed hike

U.S. ECONOMY

Even the most indifferent college student comes away from economics course with this basic understanding of pply and demand: All markets will clear at a certain ice. That simple concept holds true even in today's ineasingly complex economy, and it is especially relent to today's labor markets. That's why policymakers the Federal Reserve will keep in mind their Econ 1 lessons when they set monetary policy this year.

As is evident from the December employment data, rains on the labor supply are the greatest they have en in a generation, even as the unrelenting strength spending by consumers, businesses, and foreigners eans that the demand for workers will not let up ıytime soon. The result: The price for labor—in this se, wages—is under strong upward pressure.



The recent shrinkage in the pool of available workers is not hard to figure when you consider how fast the U.S. economy has expanded in the past four years. In that time, real gross domestic product grew 4% annually. And even though productivity rose at a spectacular 2.6% per year in that period, businesses still needed to add on almost 3 illion new workers a year.

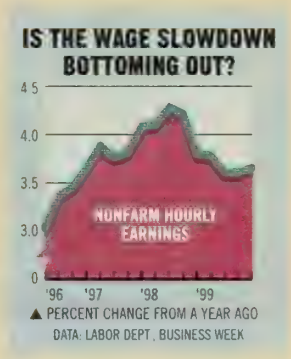
This strong hiring pace absorbed much of the excess bor in the U.S. Consequently, by December, the pool workers who want to work but do not yet have a job ad shrunk to a near record low (chart). Moreover, ıe fact that the jobless rate has continued to trend ›wer means that 4% growth is above the economy's ıstainable noninflationary growth rate.

HE DANGER IS THAT as the labor pool dries up, an cceleration of wages will touch off a pickup in inflation ıst when it seems that price stability has arrived. To ffset higher wages and maintain that price stability, roductivity would have to grow even faster than its aleady speedy pace. Or more likely, the only other way ɔ derail labor-cost pressures is for economic growth—nd thus, labor demand—to slow significantly. The urest way for that to happen is for the Fed to keep iking interest rates until it does.

The December job data made it clear that the labor markets continued to be stretched thinner. Nonfarm payrolls rose a larger-than-expected 315,000. For the fourth quarter, new jobs averaged 274,000 a month, the largest quarterly gain for the year.

In addition, the rebound in industrial activity may be translating into a turnaround in factory jobs. Manufacturers added 8,000 workers in November, and cut just 1,000 last month. Compare that with losses averaging 26,000 per month in the first 10 months of 1999.

Private-service companies added 234,000 new workers in December. Retail payrolls alone jumped by 65,000, after holding steady in the previous four months.



As it usually does every December, the Labor Dept. included new seasonal factors and made small revisions to the historical data. The new adjustments helped to hold the unemployment rate at 4.1% in December. Using the old factors, the rate would have slipped to 4%. Either way, the jobless rate is at its lowest since January, 1970, and the recent pace of job growth, if maintained, is guaranteed to send joblessness below 4%.

NONETHELESS, THE FED is relying on new data to understand truly what is going on in the labor markets. The Fed has broadened the number of unemployed by including jobless workers between 16 and 64 years old who have stopped looking for work but are willing to work. Under this new measure, the supply of available labor in December remained near its record low of 9.5 million set in October. That works out to a record low 6.9% of the potential labor force who want a job.

Another sign of tight labor markets is the growing number of people who have quit their jobs without another waiting for them. The "quit rate" has jumped from 12% of all unemployed workers at the end of 1998, to 14.4% in December, 1999. A high quit rate is a sign that job jitters are on the wane. The rise in the quit rate goes hand in hand with the recent Conference Board's find that a record 51.5% of consumers think jobs are plentiful.

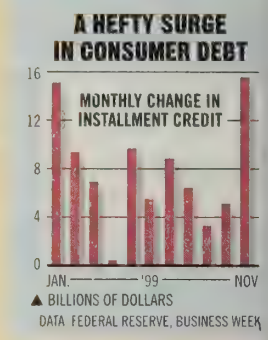
That perception of easy employment may embolden workers to demand bigger pay raises (chart). And not just those who are switching jobs. The inflationary

danger is that businesses will have to raise wages just to retain existing workers, and red-hot demand could allow the price hikes needed to cover the added cost.

Although wage growth has not yet eclipsed the acceleration of 1998, pay gains seemed to have bottomed out last summer. In December, the average hourly pay for production workers increased 6¢, to $13.46. Wages rose 3.7% in the year ended in the fourth quarter. That pace still puts wage growth below its expansion high of 4.2% in mid-1998, but it has stopped falling. Moreover, in early 1999, overall pay gains were held down by the sharp slowdown in factory earnings as manufacturers pared their payrolls. Over the past two quarters, factory pay has been growing just as fast as the 3.7% pace of wages at service companies.

Keep in mind, though, that the monthly wage data cover an increasingly smaller share of the workforce. To get a better idea of where labor costs are headed, the Fed will scrutinize the more encompassing employment cost index. The ECI, which includes wages, salaries, and benefits, will be released by Labor on Jan. 27, just days before the Fed's next meeting on Feb. 1-2.

THE HEADY STATE of the labor markets is partly responsible for the euphoria among consumers. That's why households are still spending at a rapid pace in the new year and why they are not afraid to borrow huge sums of money. In November, installment debt jumped $15.6 billion, three times the gain in October (chart Consumers are on track to take on $95 billion more installment debt in 1999, the most in four years.



The consumer spending spree will strain the labor markets further in 2000. That's because as long as domestic demand remains strong, businesses will need to hire more workers. New jobs contribute to more increases in incomes and more spending. Add in the continued gains in the stock market, and it's easy to see that households have the wherewithal to keep spending.

What can stop them? A strong dose of tighter mo ey. Higher interest rates will cool off the stock marke curb new borrowings, and slow demand. Only the will businesses ease up on hiring.

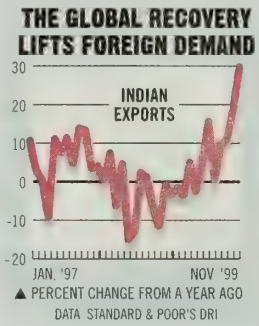
What the employment data do not show is how man jobs are going unfilled because businesses cannot fin qualified workers. The Fed relies on anecdotal report including those contained in its Beige Book, to gaug such labor shortages. But the real confirmation of an imbalances will be found in wages. As long as the de mand for labor outpaces supply, look for wage growt to accelerate at a faster pace than the Fed desires.

INDIA

REFORM IS THE KEY TO LASTING GROWTH

India's economic prospects this year and next look good, but a huge reform effort is vital to lasting success.

The latest data for the July-to-September quarter, the second in India's April-to-March fiscal year, show that the economy grew 6% from a year ago, about the same yearly pace as in the first quarter. A surprisingly strong advance in October industrial production and a sharp rise in November exports suggest continued strength in the third fiscal quarter.



The first majority government in a decade, led by the Bharatiya Janata Party (BJP), projects growth of 6.5% for the 1999-2000 fiscal year. Many private analysts agree, and they expect growth in 2000-01 in that range as well. The pace in 1998-99 dipped to 6%, after averaging 6.8% in the previous three years. Growth will be fueled by a rebound in India's huge agricultural sector, helped by the Asian recovery. The global upturn will especially benefit India's booming software industry.

Exporters will also be aided by a competitive rupee, which fell a bit in the past year as most Asian currencies rose. Still, the rupee is well supported by strong capital inflows in the fourth quarter and by tame inflation. Inflation is expected to pick up, from near zero, but not exceed the central bank's tolerance limit of 5% to 6%.

However, the BJP will have to deliver on its promises of reform. India's central bank would like to lower a key interest rate, now at 12%. But after just the first eight months of the fiscal year, the central government deficit is already at 81% of the full-year target. State government finances are in even worse shape: Substantial private investment is being crowded out by the government's huge financing needs. Weaker investment was one reason why overall growth slowed last year.

Reform efforts will have to be aimed at better tax collection, privatization of publicly owned companies, expensive government subsidies, and high interest costs on the government debt. The BJP's dilemma: Fiscal reform will crimp economic growth in the short run.

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ups

LOOKING FOR THE
ULTIMATE SEARCH ENGINE?
OURS CAN TRACK 11 MILLION PACKAGES A DAY.

OLD ECONOMY STRATEGIST LEVIN AND NEW ECONOMY HOTSHOTS CASE AND PITTMAN: A $153 BILLION GAMBLE

WELCOME TO THI

With one stunning stroke, AOL and Time Warner create a colossus and redefine the future

On the surface, it looked like just another awesome megadeal. There were the top executives up on stage, palling around like local-TV anchors—and assuring everyone that this would be a merger of equals, a careful blending of two companies, two cultures. But make no mistake: America Online is the acquirer. The trading symbol for the new company, tellingly, is AOL.

Given the realities of the New Economy, it could hardly be otherwise. By now, the pattern is clear: The digital will prevail over the analog, new media will grow faster than old, and the leaders of the Net economy will become the 21st century Establishment. If the ascendance of the Net economy were not clear already, the Jan. 10 announcement of America Online Inc.'s $183 billion deal to purchase Time Warner—the biggest deal ever—should be taken as proof positive. AOL has just one-fifth the revenue and 15% of the workforce of Time Warner, itself the combination of publishing and entertainment empires that have been fixtures in America culture since the 1920s. But with a New Economy stock that investors valued at nearly twice that of the Old Economy icon, AOL had the resources to be the buyer, not the bought. "The deal shows the torch has passed," says Bruce Leichtman, director of media and entertainment strategies at research firm Yankee Group.

Cover Story

Now, New Economy titans Stephen M. Case and Robert W. Pittman will team up with Old Economy strategist Gerald M. Levin—CEO until 2003—to assemble a new kind of conglomerate whose very existence will likely change the contours of

PHOTOGRAPHS BY MIKE SLAGAR/REUTERS

21ST CENTURY

HOW THE GIANT FITS TOGETHER

The AOL Time Warner conglomerate will bring together a unique blend of media assets and methods to put them before the public

CONTENT

PRINT
Time
People
Sports Illustrated
Entertainment Weekly
Money
Fortune
And 27 other titles
Book Publishing

FILM
Warner Bros. Studios
New Line Cinema
Turner Classic Movies

MUSIC
Warner Music

TELEVISION
CNN
TNT
TBS
HBO
The WB Network

DIGITAL CONTENT
AOL Sites
CNNi
Magazine Web sites
MapQuest
Moviefone

DISTRIBUTION

CABLE
Time Warner Cable

INTERNET SERVICE
America Online
Roadrunner
CompuServe

TELEPHONE
Deals with regional Bells for DSL service

SATELLITE
AOL owns a stake in DirecTV

information and entertainment media—digital and otherwise. Case, who will be chairman of AOL Time Warner, is making a huge bet that by melding the Time Warner colossus with his Internet empire, he will create a hybrid with unmatched advantages as the long-anticipated convergence of entertainment, information, communications, and online services comes about in the next few years.

It is a bid to define the future. By assembling more assets and audiences and advertisers for the new digital marketplace than anyone has previously even thought of, Case and AOL President Pittman see a chance to move so far ahead that others won't catch up for years—the way Alfred P. Sloan audaciously engineered the creation of General Motors Corp. in the 1920s—producing the corporation that dominated the U.S. in the Auto Age. "This should provide encouragement for other combinations that wouldn't have been thought possible," Time Warner Chairman Levin told BUSINESS WEEK on Jan. 11.

Cover Story
AOL TIME WARNER

COSTLY BET. But deal handicappers are scratching their heads, trying to figure out how to come close to this combo. "There just isn't another AOL out there," says Robert "Dob" Bennett, president of Liberty Media Corp., which owns a 9% nonvoting stake in Time Warner. "This was a landmark deal, and I don't know if it can be duplicated."

It is also an immensely costly move: To secure this strategic stronghold, AOL proposed to pay a 71% premium over what Time Warner was valued at in the market. In the following days, however, AOL's high-flying stock was quickly devalued as investors focused on how tying up with Time Warner may produce a company with rates of return usually associated with the Old Economy (page 39). Pittman, who will start out as co-chief operating officer with Time Warner President Richard D. Parsons, says the market is wrong in thinking that AOL will come to resemble Time Warner rather than vice versa. Time Warner has "traditional businesses with big brands, long consumer relationships, strong cash flow," he argues. "All you need to do is put a catalyst to it, and in a short period, you can alter the growth rate. The growth rate will be like an Internet company, but built on businesses that have already built their brands."

Still, there is a fundamental risk to AOL that goes beyond stock valuation. Although the acquirer, it could become the captive of the sprawling Time Warner empire, which has 82,000 employees and a distinctly Old Economy management culture that could rob 15-year-old AOL of the flexibility, speed, and entrepreneurial drive that are crucial in the New Economy (page 40).

That's the big picture. For now, however, you can think of the combination in simpler terms: pipes and content. With its cable systems serving 20% of the country, Time Warner gives AOL a clearer path into broadband than it had with its previous plans to rely solely on upgrades in local telephone lines and satellite TV. The speedy new links—available across Time Warner systems by next year—not only will make existing Web fare far more appealing but will also make practical all sorts of new things, including AOL TV, a service to deliver the Web to TV sets that the company is rolling out this June. "We're now at the cusp of a fundamental new Internet experience, enabled by broadband access," says Case. "It's [about] a whole range of experiences, including a more engaging multimedia experience on a whole range of devices, of which TV is increasingly prominent."

KING CONTENT. And when all that bandwidth and all those gizmos are hooked up, AOL Time Warner will have the world's greatest trove of content with which to attract the largest audience, the most subscribers, and the most ads and e-commerce. From *In Style* magazine to Turner Classics' movie vault to CNN to the latest Kid Rock CD, Time Warner has something for everybody. Nobody knows that better than Levin, who has spent hundreds of millions in efforts to leverage those assets in cyberspace—and had budgeted as much as $500 million for 2000. But many projects, such as the Pathfinder Web portal, went nowhere. And Time Warner's Old Economy balance sheet and

> "AOL woke up one day and understood that their core competency wasn't pipes, but content"

RUNNING THE NUMBERS ON THE DEAL

Ted Turner may think that the joining of Time Warner and America Online is as good as making love for the first time, but average investors took a more dispassionate view. By Jan. 12, two days after the Merger of the Millennium was announced, the combined market value of AOL and Time Warner was actually lower than before the announcement—$260 billion, vs. $270 billion pre-deal. In the eyes of Wall Street, the much lauded deal actually destroyed value.

That could well change in the days ahead, of course. Shares of AOL are notoriously volatile, and investors may learn to love the combination. But what the early sell-off showed is the difficulty of merging not just two companies but two sets of shareholders with different views of the world. AOL shareholders bought their shares as an Internet play. Time Warner shareholders acquired what they thought was a media company. Now, both groups will become owners of a hybrid that wasn't what either exactly bargained for.

MISSING BILLIONS. Time Warner shareholders, to be sure, have nothing to complain about. Their company's market value was still up $22 billion as of Jan. 12, thanks to the generous ratio of shares they are slated to receive in the new AOL Time Warner Inc. The big losers were shareholders of AOL, whose market value fell 19%, or $32 billion, in the days immediately following the announcement of the deal. Out of that $32 billion, about $22 billion was effectively transferred to Time Warner shareholders and about $10 billion simply vanished in the stock's fall—in effect, the market was concluding that the companies were worth less together than apart.

The deal calls for America Online shareholders to receive one share in the new company for each of their current shares, and for Time Warner shareholders to receive 1.5 shares for each of theirs. That represents a 70% premium for Time Warner shareholders, based on the pre-deal prices of the stocks and the numbers of shares outstanding. It gives AOL shareholders 55% and Time Warner shareholders 45% of the new company.

In an interview with BUSINESS WEEK, AOL Chairman and Chief Executive Stephen M. Case said he thought last fall that the deal should be a "merger of equals." Ordinarily, that would mean giving each set of shareholders 50% of the new company. When AOL shares started running up, he decided to ask for better terms. "We were prepared to pay a premium, but there are practical limits," he says.

Based solely on pre-deal market capitalization, Case says, AOL shareholders should have gotten 65% of the new company. On the other hand, basing the ratio on the companies' revenues or cash flow would have given AOL shareholders just 20% of the company, he notes. Says Case: "They recognized the leap of faith that Internet valuations are real. We took a similar leap of faith that media assets are valuable and underappreciated. And we arrived at some place in the middle."

EARNINGS HIT. So how much is AOL really worth, given its deal to acquire Time Warner? The method that Case favors—and that Wall Street analysts often use—is to project the combined companies' per-share earnings before interest, taxes, depreciation, and amortization (EBITDA)—roughly speaking, operating cash flow. That measure ignores the giant hit to net earnings that AOL will take by writing off about $15 billion of goodwill annually for 10 years. (Goodwill is the gap between the purchase price for Time Warner and the book value of the company's net assets.)

Pre-deal, Time Warner shares traded at a multiple of 14 times EBITDA, while AOL's shares traded at an EBITDA multiple of 55 because of its higher growth rate. The multiple for the blended company will depend on whether investors see the hybrid as more like AOL or more like Time Warner. Merrill Lynch & Co. analyst Henry Blodget expects the multiple to range between 25 and 40, implying a price for AOL stock between $55 and $90 (table). In a Jan. 11 report, he advised that, if the merger goes well, the price could be $90 to $100 in a year. If so, AOL is a great buy at $60. If not, AOL shareholders may get a new message: "You've got losses."

By Peter Coy in New York, with Catherine Yang in Washington

AMERICA Online TIME WARNER

ONE STAB AT VALUING THE STOCK

Merrill Lynch & Co. analyst Henry Blodget projects the combined companies' earnings before interest, taxes, depreciation, and amortization (EBITDA) in 2001. Different assumptions about the multiple the market will pay for EBITDA produce a target stock price of $55 to $90 a share

TOTAL SHARES IN NEW AOL TIME WARNER	4.8 billion
STAND-ALONE AOL EBITDA	$3.5 billion
STAND-ALONE TIME WARNER EBITDA	$6.5 billion
GAINS FROM SYNERGY	$1 billion
TOTAL EBITDA	$11 billion or $2.30 per share
CONSERVATIVE PROJECTION OF COMBINED COMPANIES' EBITDA MULTIPLE	25
EBITDA X MULTIPLE	About $55 a share
AGGRESSIVE PROJECTION OF COMBINED COMPANIES' EBITDA MULTIPLE	40
EBITDA X MULTIPLE	About $90 a share

DATA: MERRILL LYNCH & CO

shareholders would not permit the years of losses required to fund a massive online effort—the way pure Internet companies such as AOL can.

In the end, that helped convince Levin and his eclectic management team—including Vice-Chairman Ted Turner—that it was worth giving up corporate control to secure their company's berth in the New Economy. "It's damn hard," says Parsons. "We could work for a decade and maybe still not get up to a level that would be competitive."

AOL also gains things that it needed but could not get on its own: access to broadband distribution and more compelling content. The company, which dialed back its own efforts to develop new content in recent years, now realizes that it can't thrive long-term as mainly a glorified Internet-access provider. "AOL woke up one day and understood that their core competency wasn't pipes, but content," says Edward J. Zander, president and chief operating officer of Sun Microsystems Inc. "It's like when the train companies figured out they're not train companies, but transportation companies."

How will AOL get the most from Time Warner's distribution and content—and Time Warner gain from its links to the world's biggest online community? Even before the deal closes later this year

COMMENTARY

By John A. Byrne

IS THIS BABY BUILT FOR CYBERSPACE?

"I feel betrayed. I bought a company that was going to change the world. I didn't buy a big, fat, stupid conglomerate. And now I've got one."
—Alan Towers

Does Towers, a New York consultant and AOL shareholder, know something that the architects of the world's biggest merger don't?

America Online founder Steve Case has shown a keen ability for seizing on a world-changing vision and sticking with it. The boyish entrepreneur has defied the odds and the calamitous predictions to create the largest and most profitable company in cyberspace. And his audacious plan to take over Time Warner is the grandest manifestation of that vision yet—a behemoth that can place more digital content in front of more consumers than anyone on the horizon. In short, a General Motors for the New Economy.

GM'S SLOAN: *Architect of the Old World Order*

DATED STRATEGY. Case's remarkably bold stroke is in fact reminiscent of the architecture designed by Alfred P. Sloan at GM in the 1920s. Through monumental acquisition and vertical integration, Sloan created a giant that outdistanced its rivals on every measure and dominated the world auto industry for nearly half a century. Sloan's strategy was simple but powerful: GM built a car "for every purpose and purse" and sewed up more of the market than anyone else.

Seven decades later, Case is pursuing a similar strategy of vertical integration and conglomeration to rule cyberspace. There is, however, an inherent problem in the analogy: Case is using Old Economy tools in a New Economy that he has helped to define.

Leaders in this economy have generally understood that, unlike in the world of iron foundries and stamping plants, the attributes of size—access to greater resources, economies of scale, and stability—are not nearly as crucial as flexibility, speed, and agility. They know that partnerships, without the fixed costs, inventories, and management headaches of pure ownership are the antithesis of vertical integration. And they've learned that melding a sleek, fast-growing organization with a big established enterprise is the quickest way to slow growth and smother creativity.

Indeed, few people have mastered that lesson better than Case himself. The giants of old media, including Time Inc., were the first to enter the online services business with ill-fated experiments. Then came Prodigy, the joint venture of IBM and Sears Roebuck. But AOL was the one that triumphed—thanks to Case's focus on brand building and a strategy of turning cyberspace into a friendly place for everybody.

OBSOLETE PIPE. The Time Warner deal smacks of an endgame maneuver—in a single strategic stroke putting miles between AOL and the competition. But who's to say that there won't be a new Steve Case who will use the tools of the New Economy—alliances, technological knowhow, and an inspired workforce—to leap over this giant combination? Alternate broadband technologies over copper, satellite dish, or wireless phone lines could render the AOL Time Warner cable "pipe" into the home obsolete. Smart new entrepreneurs could align with other content providers to create similarly large audiences. Timothy Koogle of Yahoo!, for one, says he "sees no necessity" to own content when you can partner for it.

After the front-page hype and hoopla, after the i-bankers collect their fat fees, the dealmakers face the daunting challenge of making a sprawling and bureaucratic empire work. Just as Sloan did in his day. It's something that Tower and other shareholders ought to worry about.

Senior writer Byrne covers management.

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LEVIN AND CASE HIGH-FIVING AT THE ANNOUNCEMENT CEREMONY: EUPHORIA ALL AROUND

the companies are making plans to work more closely together. Entertaindom, the first of several miniportals Time Warner is starting, will be featured on AOL's entertainment channel. And Warner Brothers stores will have prominent displays of AOL sign-up disks.

But that's just cross-promotion. The key to the deal is developing new types of Web sites and services using Time Warner's rich content and getting them up quickly using AOL's vast Web infrastructure. Another plus: The companies will combine sales forces and back-end functions such as sales and customer support call centers. In all, the two companies promise to generate $1 billion in extra cash flow from "synergies" in their first full year together. That includes eliminating some of the $800 million AOL spends on advertising by using house ads across Time Warner media.

TUNEFUL. The first big stab at synergy may come in online music. Look for artists from Warner Music Group to be featured on AOL's music channel, where consumers can sample music and order CDs online—from CDNow Inc., which Time Warner partly owns. There is also potential for selling downloads on AOL. "We can help reinvent the business," says Case. "In the long run, we have the opportunity to create a personal jukebox that you carry with you—so you can listen to it on a pay-for-play, subscription, or pay-once-and-play-for-life basis."

Cover Story

AOL TIME WARNER

Perhaps the greatest strength of the two companies going into the merger is the subscriber relationships they have with more than 100 million consumers. AOL has 22 million subscribers, and Time Warner's biggest sources of revenue are 28 million subscriptions to its magazines, 13 million cable subscribers, and 35 million paying viewers at its cable-movie service HBO. Plus, it draws fees from the 75 million households that take the TBS and TNT channels, and from TV services around the world that carry CNN. In addition, the new companies have a huge presence on the Web. Along with the AOL properties, including the Netscape portal, Time Warner has hundreds of sites including CNN.com.

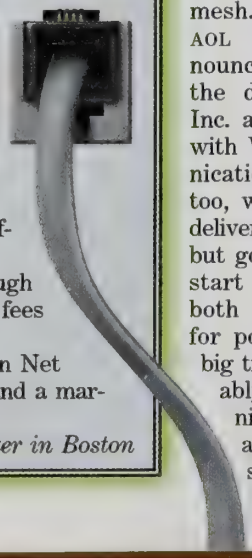
SLICE AND DICE. That's a promising venue for advertisers, notes Renatta McCann, managing director for Starcom North America, a media buyer with $8.5 billion in annual billings. "The combined company will have a fantastic database," says McCann. "They will have a phenomenal way of slicing and dicing their consumer database to deliver the specific target audiences that I want."

That's the theory. How well it works in practice depends largely on how well the management of the two companies mesh. Ironically, the AOL deal was announced 10 years to the day after Time Inc. agreed to merge with Warner Communications. That deal, too, was supposed to deliver quick synergies but got off to a rocky start as execs from both sides jockeyed for position. "In any big transaction, probably the most significant risk is really people risk," says Levin. The

A LITTLE HELP FROM THE FEDS

How can a Net company that has never covered a war or made a movie swallow a premiere news and entertainment conglomerate? In part, America Online Inc. can thank government policy for helping it get a stock valuation that lets it absorb Time Warner Inc.

How so? Web traffic, like long-distance calls, must use the local phone network to reach customers—a service for which long-distance providers until recently paid local carriers as much as $30 billion per year. But back in 1983, the Federal Communications Commission exempted data carriers—then, an "infant industry"—from those fees. That meant annual savings of $5 billion to $7 billion, according to Legg Mason Precursor Group.



Although the infant has grown up, the exemption still stands, letting AOL and other Internet service providers offer unlimited surfing for roughly $20 a month. "The day [AOL] started offering flat-rate service, demand went through the roof," recalls online consultant George Sacerdote. The fees "would have bankrupted them," he says.

Another boost has come from the federal moratorium on Net taxation. These breaks mean more customers, more ads, and a market capitalization that allows an upstart to buy a giant.

By Norm Alster in Boston

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For AOL Time Warner, the deal means charging $15 billion a year against earnings for the next decade

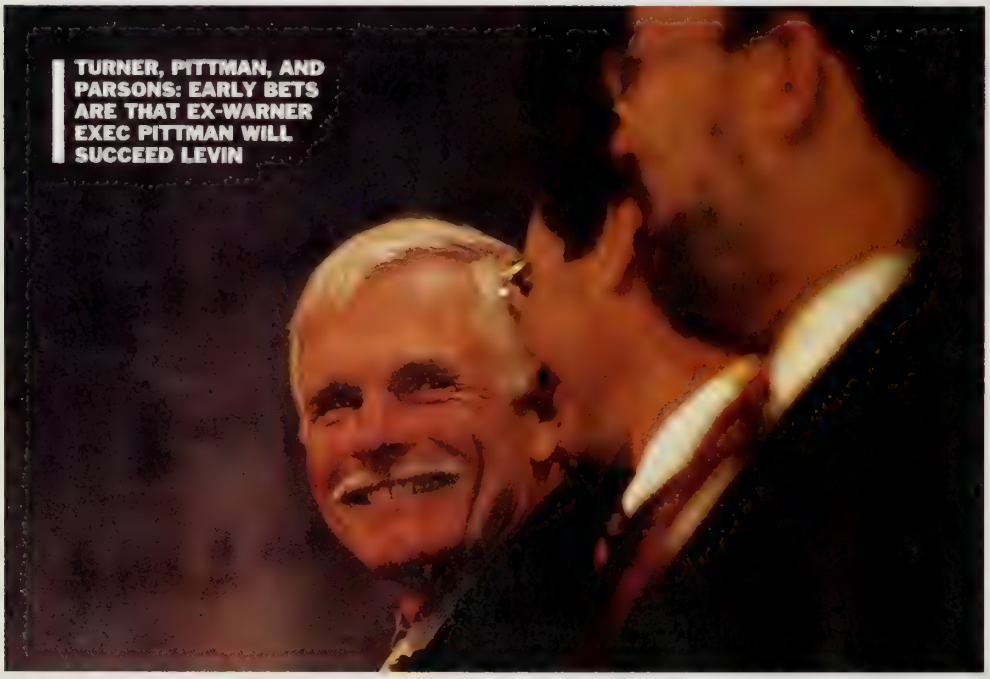
61-year-old Time Warner chairman plans to stay on as CEO of the new company until at least 2003. And he can't be removed unless three-quarters of the new company's board—which will be composed of eight directors from each company—agree. Even now, however, the media industry is betting that Pittman, 46, a former Warner exec who helped start MTV, will be the successor to Levin.

Cover Story

AOL TIME WARNER

By most accounts, there is good chemistry between the scholarly Levin and the preppy Case. Their friendship blossomed last September on the 50th anniversary of the founding of the People's Republic of China. While attending a conference in Beijing, Case and Levin took in the festivities. "We stood together watching the tanks, the planes, and fireworks roll by," recalls Case. The next month, it was Case who called Levin to propose the idea of buying Time Warner—and keeping Levin as CEO. "If he had said no, I would have persevered," says Case. "Luckily, he's a smart guy and recognized...that it would be complicated to pull off but worth taking a shot."

STRONG PIPES. If AOL Time Warner does get sidetracked by internal politics, there are dozens of rivals looking for an opening. Players across the digital landscape—from Web rivals such as Microsoft and Yahoo! to the telecom giants to media companies like Walt Disney and Viacom—may have to recalibrate their strategies in the wake of the deal. AT&T, for example, plowed $110 billion into cable. But it has shied away from content and focused instead on creating broadband and local-phone links to homes—and a deal with Time Warner has been long delayed. Now, Levin says, he'll have broadband pipes, content, and the potential to add Internet telephony. Moreover, Case told BUSINESS WEEK in an interview that he has been talking with both AT&T and MCI Worldcom—on whose board he sits—about phone ventures.



TURNER, PITTMAN, AND PARSONS: EARLY BETS ARE THAT EX-WARNER EXEC PITTMAN WILL SUCCEED LEVIN

Another complication for AT&T is the AOL Time Warner pledge to provide open access on its broadband networks. AT&T, which owns 26% of cable-modem service Excite@Home, has resisted open access, which would require it to let all online services use its cable pipes on the same terms as Excite@Home. "It's probably the nail in the coffin of the whole open-access debate," says Excite@Home CEO Thomas Jermoluk.

To compete more broadly with the New New Media giant, some analysts predict closer links between AT&T and Microsoft, possibly with ties to content companies such as Disney or Viacom. "This merger will make it easier for us to find partners among the other media companies," says Yusuf Mehdi, Microsoft Network's marketing director. "Will they want to partner with AOL now?"

Indeed, in the tangled media business, the AOL deal with Time Warner a ready produces complications: Wha happens with AOL's joint venture wit Germany's Bertelsmann to roll out AO in Europe? Bertelsmann competes heav ily with Time Warner and its chairma has quit the AOL board.

Those are issues that Case, Pittma and Levin will have to address—if th deal closes as expected later this yea Despite the falloff in AOL's stock an the retreat in Time Warner shares afte an initial 50% surge, the merger is no in danger of immediate collapse becaus there is no "collar" on the deal that dic tates the limits of share prices on eithe side. That was a concession tha Time Warner made to get th 71% premium. At one critic board meeting, AOL directo James Barksdale, the former CE of Netscape Communication Corp., told fellow AOL director "Well, that's the price of eggs."

TWISTS. Another twist in the de is the use of purchase accountin rather than a pooling of interest which companies with hot stock usually use. That, say people clos to the deal, means the compan will have to write off some $15 billion in goodwill. Bottom line Charges of at least $15 billion year against earnings for the nex decade. But, insiders point out, i also gives the combined compan the chance to pursue further ac quisitions, joint ventures, or asse sales. Under a pooling of interest deal, AOL Time Warner would no be able to transfer more than 10 of its assets for two years. "We did no want to be hamstrung by the rules o pooling accounting," says Michael Kell AOL's CFO.

That means a long-rumored allianc between Time Warner and Genera Electric Co.'s NBC is still not out of th question. Nor are deals to bolster th slumping Warner Music Group, perhap by joining up with with British musi group EMI PLC. And the company coul buy up more cable systems to expan its broadband reach. "We have a lot, says Case. "I wouldn't say we hav everything we need forever." So th deal of the century may not be the las for the AOL Time Warner team.

By Richard Siklos in New York an Catherine Yang in Washington wit Andy Reinhardt, Peter Burrows, an Rob Hof in San Mateo, Calif., and bu reau reports

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SO WHO'S NEXT?

'They're all looking at each other'

Microsoft

UPSIDE Microsoft hopes AOL's alignment with Time Warner pushes other entertainment and news organizations into its arms—either as partners or customers for its "enabling" technology for Web-site operators. It has even gone so far as to spin off content properties such as Expedia to avoid clashing with potential customers.

DOWNSIDE The greatest threat to Microsoft is the heightened competition for its MSN and WebTV Internet services. AOL now has a rich array of content and a cable-delivery system the software giant can't match. With only about 3 million Net access subscribers for MSN and WebTV combined, Microsoft lags far behind AOL's 22 million customers. And so far, it has forged close relationships only with smaller Web content players like WebMD, a health-care site.

BILL GATES

PROGNOSIS Microsoft swears it isn't seeking a major merger or exclusive partnership, but analysts envision all sorts of couplings. "Could AT&T, Disney, and Microsoft get together in a huge *keiretsu*? It's very intriguing," says Michael Kwatinetz, an analyst at Credit Suisse First Boston.

By Steve Hamm in New York

AT&T

UPSIDE When it completes the acquisition of MediaOne Group, AT&T will become the largest cable operator in the U.S., with connections to more than 25% of the country's cable customers. The birth of AOL Time Warner could encourage other content companies to seek access to this system, which is being upgraded to carry data at broadband speeds.

DOWNSIDE On the Internet, AT&T holds a weak hand. Its WorldNet Internet service is only a fraction of the size of AOL. Meanwhile, Time Warner has pledged "open access" for its high-speed cable-modem service—putting pressure on AT&T to do the same and stop favoring Excite@Home, of which it is a partial owner. AT&T'S biggest hole now: no content.

PROGNOSIS The AOL-Time Warner deal means AT&T and other carriers must take another look at alliances and deals in the media world. "Most traditional telecom companies have shied away from content," says Yankee Group Research telecom analyst Brian Adamik. "The content-distribution model is very powerful. It will cause telecom companies to wonder if owning a pipe alone is enough."

MIKE ARMSTRONG

By Steve Rosenbush in New York

YAHOO!

UPSIDE Yahoo! is sitting in the e-catbird seat. The largest portal on the Web, Yahoo attracts 120 million unique visitors a month worldwide; 65% of U.S. Web users visit the site. And as one of the few profitable Web media outlets, Yahoo boasts a $94 billion-plus market cap that gives it tremendous buying power. Yahoo says that it has no plans to buy content companies—though some speculate it could make a play for Disney—but, "We have strong relationships with a pretty broad range of content providers. We're going to continue on that path," says Chairman Tim Koogle.

DOWNSIDE Yahoo has little guaranteed distribution to make sure its site remains widely available. If broadband operators refuse to open their networks to all content providers, Yahoo might be left out in the cold. And since it doesn't offer Net access services, Yahoo's hold on users is more tenuous than AOL's.

TIM KOOGLE

PROGNOSIS Since Yahoo continues to rapidly increase its registered users, it seems likely to remain one of the Web's leaders. But if media players continue to consolidate, Yahoo may be forced to make some dramatic acquisitions.

By Rob Hof in San Mateo

Hunched over their Cobb salads, the power lunchers at Spago and Le Cirque are also feasting on takeover rumors. What Net-media alliance will be next? "They're all looking at each other, saying 'What about you?'" says former Universal Chairman Frank J. Biondi. Dealmakers were suddenly abuzz with tales of what Michael or Sumner are thinking. Deals that seemed improbable weeks ago are now hot rumors. Among the players that the power crowd has been discussing:

Disney

UPSIDE AOL is coming around to agree with what CEO Michael D. Eisner has long believed: Content is king. He says that Walt Disney Co.'s brands and its ability to churn out world-class content are its strongest bets in the New Media world. It owns a winning collection of household names including Disney, ESPN, and ABC. And it has decades of experience at cross-selling—leveraging its worldwide theme parks, cable-TV holdings, and a TV network to promote its films.

DOWNSIDE Disney identified the Web as a new opportunity early, but properties such as the Go portal could be dwarfed by the combination of AOL and Time Warner Inc. And it has been unable to conjure up a broadband strategy.

PROGNOSIS With its stock on the floor due to problems at its company stores and home-video units, the company could face a takeover. One possible suitor: AT&T. "One of the first things I thought about after hearing about the AOL-Time Warner deal was that Disney is next," says Lee Masters, president of Liberty Digital, John C. Malone's Internet acquisition vehicle.

MICHAEL EISNER

By Ronald Grover in Los Angeles

Viacom

UPSIDE The AOL-Time Warner deal bolsters Viacom Chairman Sumner M. Redstone's view that content and brands matter on the Internet. And he owns plenty of both, from the Paramount studio to cable networks MTV and Nickelodeon. When his $80 billion merger with CBS closes, the company will add the most popular broadcast TV network and the No.1 radio network in the U.S.

DOWNSIDE Viacom and CBS have both been building up online businesses lately, but they were slow off the mark and still have to figure out how to integrate the online businesses of the two parents. Moreover, Viacom's lucrative cable music channels MTV and VH-1 face heavy online competition from AOL Time Warner, which will have a big presence in digital downloading and online music sales.

SUMNER REDSTONE

PROGNOSIS With CBS dealmaker Mel Karmazin as Viacom's CEO for the next three years, little can be ruled out. If he thinks the best move for Viacom stock is to partner with or be acquired by an Internet company, Karmazin will make it happen. Says Redstone: "If there's a deal out there, we'll look at it, but we're going to look at it very carefully."

By Richard Siklos in New York

News Corp.

UPSIDE News Corp., owner of the Old Media icon Fox film studios, has impressive worldwide distribution assets with satellites in Asia, Europe, and Latin America and the Fox TV network in the U.S. The Fox brand has been extended to sports, news, and children's networks on cable. The company also owns newspapers in Britain, Australia, and the U.S. and book publisher HarperCollins. It has spent lavishly to acquire top-notch sports teams to provide programming for its broadcast and cable outlets.

DOWNSIDE Bruised relationships with cable operators slowed efforts to place cable channels on U.S. systems. Not yet a presence on the Net, it has earmarked $300 million for New Media investments. It has few assets in the music industry.

PROGNOSIS The family-run empire isn't likely to cede control in any deal. More likely are content-sharing joint ventures with Net companies. "We're comfortable with our position," says James Murdoch, Rupert's son and an executive vice-president of News Corp. "But clearly the whole sector will start to undergo a lot of activity as people start to get worried."

RUPERT MURDOCH

By Ron Grover in Los Angeles

THE ECONOMY

THE CASE FOR A SOFT LANDING

Greenspan believes consumption is coming under control

If anyone should be worried about where the economy and financial markets are headed, it should be Federal Reserve Chairman Alan Greenspan. After ending the millennium with a bang, the economy shows scant signs of slowing despite three interest rate hikes by the central bank last year.

But even as the yield on 30-year Treasuries is being pushed to levels not seen in 2½ years, confidants say the central bank chief is serene, even optimistic. Why? Because despite the wildly gyrating Nasdaq and predictions that fourth-quarter gross domestic product could top 5%, Greenspan believes the pieces are falling into place for the Fed to engineer a much-awaited satin-soft landing for the high-flying U.S. economy.

UNDER CONTROL. The key reasons: The broadest measures of stock wealth, such as the Wilshire 5000 index, are no longer growing much faster than personal income (chart). Coupled with the slight chill brought to the housing market from higher mortgage rates and the relentless rout in the bond market, the fabled wealth effect—the boost to consumption from higher asset values—may be finally coming under control. And in Greenspan's view, without the wealth effect, it is much less likely that the economy will continue to grow at an unsustainable rate.

To be sure, the Fed has anticipated a slowdown in the markets and the economy in each of the last three years, and it hasn't occurred. The same thing could happen again. If the economy keeps growing faster than the Fed's 3½%-to-4% speed limit, that would put upward pressure on inflation. A sharp rebound in growth overseas, as many economists expect, could also spur inflation. Given these risks, a quarter-percentage-point rise in the key interbank federal funds rate at the central bank's next meeting on Feb. 1-2 seems assured. But at least

PHOTOGRAPH BY DENNIS COOK AP WIDE WORLD. PHOTO ILLUSTRATION BY JOE CAVIELLO/BW

for now, it seems less likely that the Fed is about to embark on a yearlong mission to lift rates by a full percentage point or more from their present level of 5.5%.

It seems the three earlier rate hikes may finally be starting to have their intended effect. While most investors and cable news commentators have been transfixed by the ear-popping rise of the Nasdaq, the gains in the broader stock market have slowed. From mid-1997 to mid-1999, the Wilshire 5000 stock index—which includes virtually all U.S.-headquartered, actively traded common stocks—rose by 44%, compared with only 12% for personal income. That gain in the market helped consumers feel richer and sent them rushing to stores and online e-commerce sites, boosting consumption in excess of income—a sure recipe for inflation. But since the summer, the Wilshire index has risen only slightly faster than personal income. If that continues, it becomes less likely that the stock market will generate an overheated economy.

Meantime, rising rates are starting to dampen some sectors of the economy, including housing. New home sales fell 7% in November. Another sign of more temperate growth: The pool of available workers, a favorite Greenspan statistic, isn't shrinking as fast. For the past five months, in fact, it has held steady at 5.5% of the working age population.

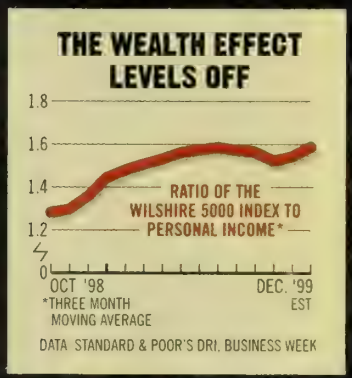
That doesn't mean Greenspan and his fellow Fed policymakers can afford to relax. At the top of their concerns: the still-volatile stock market. If stock prices go through the roof this year, the Fed's hopes for a smooth landing for the economy go out the window. The trouble, some experts say, is that the Fed's policy of small interest-rate increases may not be enough to rein in eager investors afraid to be left out of the next big surge in prices, particularly of tech stocks. "This is a trial-and-error process," says David Jones, chief economist at Wall Street broker Aubrey G. Lanston & Co. "It might not work given the wildly bullish psychology we've seen at times on Wall Street."

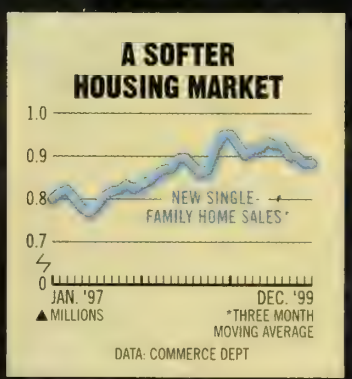
BIG BOUNCE. So what matters most at the next Federal Open Market Committee meeting is not only how much the central bank hikes, if it hikes, but what the Fed has to say about any move. Indeed, the Fed is retooling its disclosure policy—including its announcement of the "bias"—in time for its next meeting to communicate its aims more precisely.

Another potential pitfall for the Fed: a surprisingly strong rebound overseas. In recent years, a weak global economy provided a safety valve for the exuberant U.S. economy, since any excess demand could be met from imports. But with Asia and Europe coming out of the doldrums, some Fed policymakers reckon the turnaround overseas could boost U.S. economic growth by nearly a full percentage point this year. That would put more pressure on domestic markets.

CAUSES FOR CHEER

The rate hikes seem to be having their intended effect, at least in some key sectors of the economy





And unlike in past years, the Fed is not getting any help from fiscal policy in reining in the economy. With President Clinton and Congressional Republicans colluding to bust the budget caps on spending in everything but name, the federal budget should end up boosting growth slightly this year, rather than holding it back.

Ironically, even as the Fed frets about the markets and the economy overheating, it also must watch for another type of danger: a sudden stock market crash. With high-tech share prices having climbed to levels increasingly divorced from such fundamentals as price-earnings ratios and interest rates, some Fed insiders are concerned about the financial and economic implications of a sudden market crash. "The risks of a crash are growing," says former Fed official Lyle Gramley, now an economic adviser to the Mortgage Bankers Assn.

Perhaps. But no matter which way the market goes, steering the economy to a soft landing won't be easy. Princeton University Professor Alan Blinder, who was at the central bank when the Fed engineered a soft landing for the economy in 1994-95, says the Fed has to be both lucky and good to pull it off a second time. "Coming into an airport, a pilot can do all the right things, but if he gets a severe downdraft the plane is still going to hit the runaway very rudely," Blinder says. "You both have to get the settings right and be lucky." But so far, it looks like the Fed will be able to get the economy home safely again.

By Rich Miller in Washington

COMMENTARY

By Lorraine Woellert

TAKE AIRLINE REFORM OFF STANDBY

Last year was supposed to be the year long-suffering airline passengers finally got revenge. It started on Jan. 2, 1999, when a snowstorm left hundreds of Northwest Airlines Corp. passengers trapped on a plane for hours within sight of the terminal at Detroit International Airport. The headlines galvanized support for passenger bill-of-rights legislation. The Clinton Administration floated plans to help monopoly-busting small carriers get into the air. House Transportation Committee Chairman Bud Shuster (R-Pa.) vowed to increase competition at hubs dominated by a single carrier.

But 1999 ended without any true reform—and with a record level of dissatisfaction with the industry. On Jan. 3, the Transportation Dept. reported that it received 16,420 complaints from airline passengers for the 11 months ended Nov. 30, an increase of some 115%.

CUSTOMER SERVICE

Last year's proposed passenger-rights bills were pushed aside in favor of an industry vow to clean house

SCOT-FREE. Why were politicians willing to ignore the public outcry? They were listening to other voices. As the complaints rolled in, the airline lobbyists went into high gear, helping to kill Shuster's efforts to expand competition by building new gates at hub airports that could be given to rival carriers. The proposed passenger-rights bills, which were hastily written and considered unworkable by some, also were pushed aside in favor of a vow by the industry to clean house—a decision politicos already regret. So far, the industry's idea of passenger rights consists of promising to respond to customer complaints and tell customers of the lowest possible fare—things other industries do as a matter of course. "Airlines got off scot-free," complains Edward P. Faberman, executive director of the Air Carrier Assn., which represents budget carriers. At the same time, Transportation has lost its taste for a fight.

All this is bad news for fliers. Transportation guidelines to prevent predatory pricing by major carriers were a critical step in giving budget airlines a fair shot. Without the threat of government fines, upstarts could be forced out of business or into bankruptcy as Access Air of Des Moines was last November. And without the threat of competition, the majors may have no incentive to improve service or cut prices.

For a sign of what's to come, look at Sun Country Airlines Inc. For six months, the budget carrier has been flying from Minneapolis-St. Paul to points nationwide. It began by offering fares more than 50% below those of Northwest Airlines, the dominant carrier in Minneapolis. It didn't take long for Northwest to start matching Sun's fares and adding more and larger planes on routes served by the upstart. "They are playing a high-stakes, low-fares waiting game to see how long we can last," says Tammy Lee, Sun's director of public affairs. Transportation is investigating, but Northwest spokesman John M. Austin says the carrier shouldn't be punished for being competitive.

Northwest's type of behavior is precisely what the Administration guidelines were supposed to curb by letting regulators order carriers to stop predatory practices or face fines. Most of all, the guidelines were meant to be a club Transportation could wave at airline behemoths to keep them in line. On Jan. 20, a group of 38 state attorneys general will release a study detailing how their states have been hurt economically by the lack of air competition, bolstering Transportation's case for the guidelines.

Why is Transportation balking? For starters, the agency has changed. Half a dozen key architects of the competition policy, including Jim Craun, director of the Office of Aviation & International Economics, and Charles Hunnicutt, assistant secretary for aviation and international affairs in the DOT, have gone through the revolving door to industry. And with airlines threatening to sue Transportation on the grounds that it's overstepping its authority, some political appointees, such as Secretary Rodney E. Slater, are loath to stick their necks out in an election year. Some Slater aides say they'd rather let the Justice Dept.—which is probing American Airlines Inc.'s alleged predatory acts at its Dallas-Ft. Worth hub—restore competition to the industry than take political heat on the guidelines.

Slater insists he still stands behind the rules and paints a bright picture. "We've brought on line more new entrants and low-cost carriers [in 1999] since 1996," he crows. How many? Two, to be exact. That's a start. But Transportation can do better. It could at least make a sincere effort to turn its proposals into law. The flying public deserves no less.

Woellert covers aviation from Washington.

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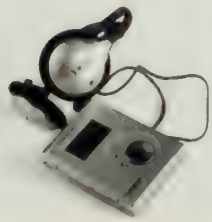

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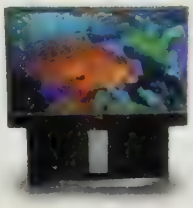

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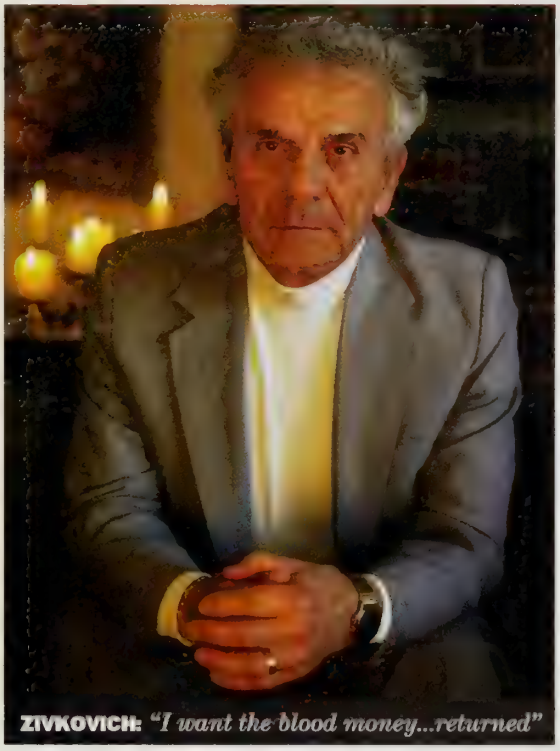

ZIVKOVICH: *"I want the blood money...returned"*

LAWSUITS

DID NAZI LOOT END UP AT THE VATICAN BANK?

Balkan victims level new allegations

With the recent publication of the scathing indictment of Pope Pius XII, the bestselling *Hitler's Pope*, the Eternal City has been bombed with bad publicity of late. More is on the way. A recently filed lawsuit alleges that during Hitler's reign, the Vatican Bank received at least 200 million Swiss francs from Hitler's wartime puppet Ustasha regime—money the Nazi collaborators allegedly looted from Jews, Ukranians, Serbs, and others. This opens up the possibility that after the Swiss banks, the Vatican Bank could be the next big target.

The class action, headed up by attorney Keelyn Friesen at Minneapolis law firm Zimmerman Reed, involves some 2,000 plaintiffs who are seeking an accounting of the purported funds as well as restitution that could amount to $200 million. The claim also names as yet unidentified Swiss, Austrian, Argentine, Spanish, Italian, Portuguese, and German banking institutions, where plaintiffs' lawyers say some of the plunder may have been routed to help Nazi war criminals escape to Argentina.

The suit relies on once-classified documents from various countries that have been made public in recent years, as well as a 1998 U.S. government report issued by Commerce Under Secretary Stuart Eizenstat. Some of the report's most damning evidence appears in a 1946 intelligence memo from a U.S. Treasury agent named Emerson Bigelow who states that Swiss francs were "held in the Vatican for safekeeping." Two U.S. Presidential commissions are set to release new information, which could shed light on Vatican activities.

Father Remi Huckmann, the Vatican's executive secretary for the Holy See's Commission for Religious Relations with the Jews, told BUSINESS WEEK he had no knowledge of the case. The Vatican has consistently denied allegations of receiving Nazi gold and said its internal review showed no trace of such funds.

One of the reasons the Vatican has been criticized is that it refuses to open its archives as others have done. But the Vatican is eager to resolve the controversy over the beatification of Pope Pius XII, who some scholars say could have done more to avert the Holocaust. In November, it finally appointed a new panel of Jewish and Christian scholars to review already published materials. But, says Jewish panelist Michael Marrus of the University of Toronto, "until there is full disclosure you are likely to see lawsuits."

That's what plaintiff George Zivkovich, an orphaned death-camp survivor from the Balkans, wants. Hitler's henchmen set Zivkovich's grandfather, a wealthy Eastern Orthodox trader, on fire and confiscated his two-story marble home. "I want the blood money that was given to the Vatican to be returned," says Zivkovich, 63, now living in Barstow, Calif.

> The Vatican has consistently denied such accusations

Much hinges on whether the Vatican will release its archives. Until then, survivors won't let it rest.

By Michelle Conlin in New York with bureau reports

FINANCE

BANK ONE: OUT OF EXCUSES?

It's still beset by woes at First USA, and profits are slipping

Pity Verne G. Istock. On Jan. 11, after just 20 days as acting chief executive of Bank One Corp., Istock was trotted out in front of Wall Street analysts who have seen shares in the nation's most troubled major bank halved since mid-July. And there was little chance this crowd was going to give the new guy a break: Bank One announced a huge $725 million fourth quarter charge and warned that 2000 results will come in far under already trimmed expectations. Istock's personal stock fell further on another bit of news: Bank One's board has asked Russell Reynolds Associates Inc. to look around for a new, permanent CEO.

After three profits warnings and the ousting of former CEO John B. McCoy Jr. on Dec. 21, Istock told the crowd, "It's fair to say we lost credibility." The bank's performance at the Jan. 11 meeting did little to restore any—though Istock and his managers promised, by 2001, to return First USA to industry-level growth and profitability.

CEO ISTOCK: *Chief scapegoat?*

Essentially, however, Istock wound up retelling the tale that McCoy told over and over last year: Problems at First USA, the credit-card unit it bought for $7 billion in 1997, continue to eat away at earnings. Once the prime engine of Bank One's profits, First USA's contribution has sunk from a third in 1999 to a projected 20% in 2000. But the excuse is wearing thin. On Jan 11, the stock hit a 52-week low of 28%.

Management insists that noncard businesses are growing—and that the 1998 merger between Bank One and First Chicago NBD Corp. is still on track. But analysts are skeptical. "It's not all First USA. Nobody believes that," says analyst Nancy A. Bush of Ryan, Beck &

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Co. "There are problems with this company that go back several years."

Evidence for that view is abundant. For instance, the company will spend $80 million to cover losses in auto-leasing. And the company admitted on Jan. 11 that it's behind schedule on switching customers onto Bank One computer systems—which is intended to save costs.

None of this is good for Istock's ambition to run the show permanently. The 59-year-old former head of First Chicago led the merger with McCoy's Bank One in 1998, and his supporters say that the Bank One board, which wants to keep the bank in Chicago, would support him as a favorite son.

Outside critics, however, think the bank's problems require a tough outsider. "The chances of Verne being named CEO are very low. They really need to bring in somebody from the outside," says Tom Brown, chief executive of Second Curve Capital, which invests in financial services companies.

Bank One's board can't afford to dither over choosing a new CEO. After the battering the bank has taken in the last six months, it needs desperately to hire a strong chief who can lead it out of the mess. Otherwise a forced sale and breakup may be the only way out.

By Pamela L. Moore in New York

AUTOS

NOW YOU CAN CRUISE–AND SURF

Detroit puts the voice-activated PC in the car

You may still think of your car as a handy way to get from Point A to Point B or maybe as a reflection of your awesome status in the world. But Detroit wants to bring you up to date: "We will do nothing short of transforming our cars into portals to the Internet," Ford Motor Co. Chief Executive Jacques A. Nasser told reporters at the North American International Auto Show in Detroit on Jan. 9.

That's right—by this time next year, in many Ford and General Motors Corp. cars, you will be able to send and receive e-mail, check stock quotes, find out what's playing at the cineplex, shop the Web, make dinner reservations, and of course make those incredibly vital phone calls—all with built-in systems. How can a driver do all that and still be able to steer and watch the road, you might ask yourself. The carmakers have a solution: hands-free, voice-activated technology. People will talk to their dashboards instead of veering across lanes while dialing phones or playing with PalmPilots. This approach, the Detroit giants are boasting, will give people all sorts of digital services with no more distraction than they get from talking to a passenger.

Even better, it will give the auto companies a nice new source of recurring revenue as the seller of car-based communications services. By inking deals with some of the biggest names in the Internet world, Ford and General Motors hope to make billions by purchasing wireless capacity wholesale and then reselling it to motorists.

By keeping hardware to a minimum, the auto makers hope to avoid sticker shock. Ford says its hardware will cost just a few hundred dollars. Instead, the real revenue will come from charging subscribers about $10 a month for basic service and potentially far more for add-ons. On many models, GM provides for free its OnStar navigation and safety system, which it uses to bring in wireless and satellite signals. The hardware will be standard in 2001 Cadillac DeVilles and Sevilles. However, it hopes to boost the current $17-to-$37 OnStar monthly fees by adding e-mail and Internet and wireless phone services—pulling in $10 billion in annual revenues in a decade.

NOT JUST PHONE CALLS...
In many Ford and GM cars, you'll be able to e-mail, shop the Web, even make dinner reservations

That would be welcome news to Wall Street: Auto stocks are already under pressure because investors doubt that sales in 2000 can match 1999's record. Says President Mark T. Hogan, head of the e-GM group: "Wall Street likes the subscription model, so we're pushing OnStar."

FRIEND OR FOE? Auto analysts, though, worry that high-technology and telecom companies may bypass Detroit and deliver services directly to motorists. Says Merrill Lynch & Co. analyst John A. Casesa: "It's unclear whether the auto companies will be able to capture the value of it."

The solution for Detroit would seem to be to partner up. Hence, the rush of deals unveiled at the Detroit auto show. General Motors, for instance, announced that it would eventually be using America Online Inc.'s browser and that it had struck a deal for free Internet access with NetZero Inc. Says General Motors Vice-Chairman Harry J. Pearce: "We're trying to decide who are friends and who are foes."

Not every auto maker in the world is rushing to wire its cars. Executives at rivals such as DaimlerChrysler, Toyota Motor, and Honda say that they aren't pinning their futures to Net-cars. In fact, Richard Colliver, sales chief at American Honda Motor Co., says that he prefers to keep his company focused on the core business: making cars. Remember?

By David Welch, with Kathleen Kerwin in Detroit

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EDITED BY MARK FRANKEL

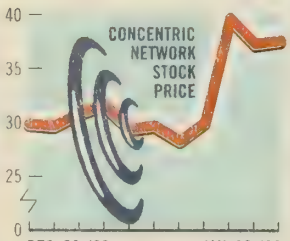
MICROSOFT: TO SPLIT OR NOT TO SPLIT

DOES THE JUSTICE DEPT. WANT to break up Microsoft? On Jan. 12, the agency shot down a report that it wanted to split the company along the lines of its business units—with operating systems separate from applications, and possibly a third Net-related company. But two sources who have spoken to Justice lawyers told BUSINESS WEEK the feds are leaning toward a breakup remedy. That's because Justice is starting to conclude that behavioral remedies, barring specific market practices by Microsoft, won't work—since monitoring Microsoft's everyday conduct would be impractical. "They are floating ideas," says one well-connected industry source who has spoken to the government team.

CLOSING BELL

NO ALSO-RAN

As the market weighs the America Online-Time Warner combo, there is little ambiguity about another deal announced the same day. When telecom startup Nextlink Communications revealed on Jan. 10 it would buy Internet service provider Concentric Network, shares in Concentric shot up 32%, to a high of 39 1/16. Analysts applauded the linkup because it will allow the companies to offer voice and data services under one roof. Concentric closed on Jan. 12 at 37 7/16.



DATA BLOOMBERG FINANCIAL MARKETS

BOEING IS BUZZING AROUND HUGHES

BOEING IS READY TO REACH deeper into space. The leading maker of commercial aircraft is close to acquiring Hughes Electronics' satellite-manufacturing business for about $4 billion, sources close to Hughes said. "We want to focus on the expansion of high-growth satellite service businesses which are growing two to three times as fast as satellite manufacturing," a source said. The division, Hughes Space & Communications, had sales last year of $2.3 billion, about one-third of Hughes' total business.

ALLSTATE CALLS IT A DAY IN JAPAN

ONLY MONTHS AFTER OPENING its doors there, Allstate is leaving Japan. The Northbrook (Ill.) insurer plans to close its Japanese auto insurance business rather than invest in expansion at this point. "We didn't want to get far into it and have a big boatload of customers before making a decision," says spokesman Jim Dudas. The group has only sold about 950 contracts since setting up in northern Japan last April, and expected losses to continue as it built operations. But fiscal restraint is pre-empting expansion—two months ago, Allstate said it would save $600 million a year by cutting 4,000 job positions. So Japan will have to wait for the "good hands" people.

RITE AID STILL HAS THE SNIFFLES

RITE AID HASN'T SHAKEN ITS bad case of accounting woes. On Jan. 11, the drugstore chain said it may not file financial statements until July 11. Rite Aid's new managers and its auditors may need that long to finish reaudits for the last several years and the current fiscal year ending in February. The company's borrowing costs may also go up if, as expected, the sale of its PCS Health Systems unit isn't completed by mid-February. "Whenever you think things could be getting better with this company, things get worse," says Warburg Dillon Read analyst Steven Valiquette.

HEADLINER: PAUL CLAYTON

THE BURGER KING ABDICATES

After years of Whoppers and fries, Paul Clayton is switching to smoothies and juice. On Jan. 10, Clayton, 41, quit as president of Burger King's North American operations to become CEO of San Francisco's Jamba Juice. While shifting from a chain with 10,700 outlets to one with about 300 might seem humbling, Clayton says he "always wanted to join a small company in its early development phase." Someday, he predicts, privately held Jamba could rival his former employer.

Clayton is credited with turning around Burger King's U. S. operations by shifting the focus back to burgers during his three years at the helm. "There was a period when we were trying to sell pizza and shrimp," he says. Now, he must persuade Americans to put down the Whopper and slurp a Kiwi-Berry Burner instead. "From a nutritional standpoint, the companies are different," concedes Jamba Juice founder and Chairman Kirk Perron, 35. "But Paul is a passionate guy who shares our vision." A Mango-A-Go-Go, anyone?

By Diane Brady in New York

A POLYMER PAYDAY FOR FARMERS?

AH, THOSE AMBER WAVES OF plastic. On Jan. 11, Dow Chemical and food giant Cargill announced a $300 million venture to turn wheat and corn into a "natural," biodegradable plastic. The stuff is made by first employing microbes to process the sugars from plants, then linking the resulting lactic acid goo to polymers. The product can be used in everything from clothes and diapers to soda bottles and furniture. Executives at the Cargill Dow Polymers joint venture are betting that the plastic will insulate them from fluctuations in the price of oil, increase farmers' incomes, and win over the ecology-minded. A factory will begin production next year in Blair, Neb.

ET CETERA . . .

- Despite a record year, Joe Roth resigned as Disney Studio chief.
- McKesson HBOC will sell its bottled water unit to Danone for $1.1 billion.
- Drugstore.com will buy cosmetics e-tailer Beauty.com for about $42 million in stock.

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YOUR FIRST SECOND OPINION℠

EDITED BY PAULA DWYER

WHY AL GORE HAS THE GREENS SEEING RED

Al Gore may not have invented the Internet, but the conventional wisdom is that among the Presidential contenders, he's the best hope for saving the planet from global warming, pollution, and thundering herds of SUVs. After all, Gore wrote the book on being environmentally responsible. That's part of the reason why, despite Gore's efforts to woo execs in the past year, the titans of industry want a President Gore like they want an ozone hole in the head. "I don't know how it's possible to go for years pushing programs that are really anti-business and anti-growth, and then wake up one day and say, 'Gee, I want to be friendly to business,'" says William L. Kovacs, vice-president for environment at the U.S. Chamber of Commerce.

So environmentalists must be pulling out all the stops to get Gore elected, right? Wrong. The only major group to endorse a candidate so far, Friends of the Earth, is backing Bill Bradley. And enviro-land is now abuzz over a memo by Sierra Club board member Michael Dorsey that refers to the Veep's "tawdry environmental record." Dorsey writes: "No real environmentalist could ever endorse Al Gore."

FINE LINE. The list of complaints is taller than a sequoia. Critics fault Gore for refusing to back an international proposal to speed up the phase-out of ozone-damaging chemicals. They also cite his failure to back efforts by California and Florida to block offshore oil drilling. And they say he has fumbled such issues as global warming, pollution from chicken and hog megafarming, mining, and logging. "Gore's done a lot of talking, but there's been precious little action," says Jim Jensen, director of the Montana Environmental Information Center.

GORE: *Enviro-lite?*

Preposterous, retort Gore insiders, who point out that Gore has his share of staunch backers—including several members of the Sierra Club board. Still, they concede that the Veep can't appear too rabidly environmental for fear of alienating the mainstream support and business backers he would need in November. But in the primaries, the environmental vote will be important in key states like New Hampshire, California, and Florida, especially given the greens' ability to organize and mobilize voters.

As a result, Gore has been trying to walk a fine line—and limit the damage from the enviros' defections. In a major environmental speech in New Hampshire, for instance, he vowed to place "environmental protection at the very heart of my campaign." But the guts of the speech was environment-lite, focusing on safer issues such as smart growth and traffic congestion instead of the more inflammatory questions like global warming. His spinmeisters even argue that attacks from hard-line enviros may help boost Gore's appeal to mainstream voters, much as right-wing criticism is helping GOP front-runner George W. Bush seem more moderate.

In contrast to Gore, Bradley is far less threatening to business. As a result, the former New Jersey Senator can afford to woo the greens more directly. And he's beginning to seize the opportunity. On Jan. 4, for instance, he won plaudits from Friends of the Earth and others for a plan to slash subsidies to miners, ranchers, and oil and gas companies.

Will this tiff make a difference in the primaries? Maybe. While environmental issues haven't played a major role so far, that could change. Polls show that over 80% of the public want a Prez who makes environmental protection a top priority. Republican John McCain has called the environment a sleeper issue of the campaign.

The bottom line: The environment is yet another minefield for Gore to negotiate. He is almost sure to regain his status as the great green hope—if he's the Democratic candidate in November. But first he has to get there.

By John Carey

CAPITAL WRAPUP

TECHIE WISH LIST GRANTED

▶ High-tech companies are getting a late Christmas present. On Jan. 12, after a month's delay, the Clinton Administration announced its long-awaited rules on the export of encryption products—and they contain almost everything the techies wanted. "The Administration has hit a home run," says Novell lobbyist Daniel F. Burton Jr.

The battle had been raging for years. Fearing that technology for hiding messages and information in unbreakable code would fall into terrorists' and criminals' hands, Washington first classified such encryption products as "munitions" and severely limited their export. But with the huge growth of computer networks—and the accompanying need to keep digital information secret—the limits put companies such as Sun, Cisco Systems, and Microsoft at a disadvantage to overseas rivals, execs argued. That's why they made relaxing export controls their top Washington priority. They thought they had won a big victory when Clinton unveiled a new, more liberal policy in September.

But the euphoria turned to concern in November when the Commerce Dept. unveiled a draft of the rules. Techies worried that the definition of retail sales, for which there were to be no controls, was too limited. And they said the definition of sales to governments, which were still restricted, was too broad, since it could include key customers such as state-owned telecoms. In talks, however, the techies largely prevailed: The final rules enable U.S. flagship products such as Novell's NetWare to go out under the retail banner. And the definition of government is narrower.

By John Carey

STRATEGIES

HIGH TECH
A handheld scanner allows a customer at a Norwood (Mass.) Stop & Shop to tally the bill as she shops

NOW, FOR ITS NEXT COURSE...

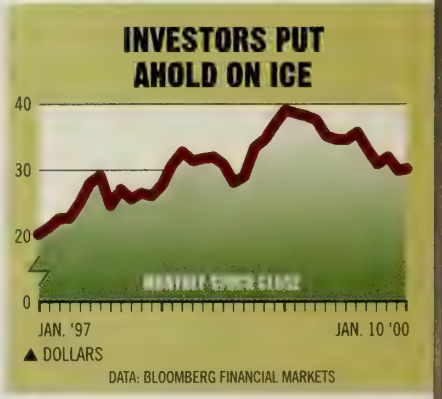
Dutch giant Ahold has a lot of U.S. supermarkets, and it wants more. But will that plan win the food fight?

Greg O'Neill, a 32-year-old research analyst toting a shopping basket full of orange juice and rotisserie chicken down the aisle of his local grocery, has never heard of Royal Ahold. Told that the Dutch company owns the Giant supermarket in northwest Washington, D.C., where he's shopping, O'Neill shrugs. "It doesn't make any difference to me," he says, adding that he likes Giant's prepared foods and specialty goods such as Swiss dumplings and British biscuits.

That sentiment suits Ahold (pronounced ah-hold), the fourth-largest food retailer in the U.S., just fine. At a time when brands are king, Ahold aims to become the nation's preeminent grocer without its customers ever hearing its name. Instead, its strategy is to buy regional chains and use its global heft to streamline operations while retaining a strong local identity. Over two decades, it has snapped up mostly East Coast players such as Giant Food, Stop & Shop, BI-LO, Edwards Super Foods Stores, and Tops Markets. It now gets 60% of its annual revenues in the U.S.

But a failed bid last month for Carteret (N.J.)-based Pathmark Stores Inc. is calling into question Ahold's game plan. Although the company now pulls in about $20 billion a year in sales in the U.S., some investors fear it might not have the muscle to compete in an industry being transformed by consolidation, the growing might of Wal-Mart's grocery business, and the rise of Internet retailers such as WebVan Group and priceline.com. "Ahold's good story in the U.S. may have played out," worries John R. Ford of T. Rowe Price International Stock Fund, which last year sold its 1.9 million Ahold shares. "It looks exposed and expensive."

Over the past nine months, those fears have spread. After Ahold's American depositary receipts peaked at $42 a share last April, they began falling as the two largest U.S. supermarket chains, Kroger and Albertson's, issued profit warnings stemming from higher-than-expected charges related to acquisitions. Then came a punch from outside the U.S.: French chain Carrefour took control of its domestic rival Promodès, leapfrogging in size past Ahold in Europe, Latin America, and Asia. Then Ahold announced in mid-December that



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it was walking away from its $1.75 billion bid for Pathmark because regulators had raised concerns about its concentration in the Northeast. That pushed the stock down to around 26. It recovered, to about 30, after Ahold announced on Jan. 6 that worldwide sales grew by 29.1%, to $33.5 billion, last year. Earnings for 1999, which Ahold hasn't released yet, are estimated to be $750 million.

"We are turning thoroughbred local operations into a powerful global operator"

CEES VAN DER HOEVEN
President and CEO

Century-old Ahold, which began as a corner grocery store in Zaandam, an industrial suburb of Amsterdam, began charging into the U.S. in 1977 by acquiring the Greenville (S.C.) chain BI-LO. When outward-looking Royal Dutch Shell alumnus Cees van der Hoeven arrived as CFO in 1986, the giant but fragmented U.S. supermarket industry looked ripe for the picking. Unlike Wal-Mart Stores Inc., which has expanded by fashioning a single, powerful identity, building new stores, and focusing on everyday low prices, Ahold has shelled out $6 billion in the past 10 years alone to acquire well-regarded, often family-owned regional chains with a more upscale profile. "People don't have to know about Ahold," says Bob Tobin, chief executive of Ahold-USA. "They just need to know about Stop & Shop and Giant."

LOCAL PRODUCE. Once it buys a new chain, Ahold tries to hang on to the local managers, but it cuts costs by combining back offices. Last year, it set up a separate financial and accounting arm for its U.S. businesses, shaving $20 million in expenses. While keeping local brand names on the packaging, it also has centralized purchasing for private-label products, which it estimates saves an additional $200 million a year. And it is pushing global suppliers hard to keep costs down. "We will always purchase our fresh vegetables and fruits locally," says van der Hoeven, the company's president and CEO since 1993. "But we will bargain globally for the best price with Coca-Cola, Procter & Gamble, and other multinational suppliers."

Ahold also leverages its technology spending. A worldwide intranet connects managers in its far-flung global operations, which number some 4,000 stores in 22 countries. The company's Dutch operation developed handheld price scanners to speed shoppers through the checkout line. Stop & Shop and its other U.S. chains now offer the devices here, allowing shoppers to tally their purchases. When they reach the cashier, they simply hand over the scanner and a credit card. "We are turning thoroughbred local operations into a powerful global operator," says van der Hoeven.

The strategy has worked, to a point. "Ahold is one of the truly superb food retailers globally," says Burt P. Flickinger III of Reach Marketing, a retail consultancy. Ahold's U.S. sales rose 29.1% last year, and it remains one of the industry's most profitable operators. It raised the operating margins of Giant Food Inc. from 3.5%, about par for the industry, to more than 5% within a year. "Ahold's margins are rising and put it in the top quarter of its peer group," says Patrick Roquasa, an analyst at Kampen & Co. in Amsterdam.

But Ahold's low-profile strategy is being tested as never before, thanks to a rapidly consolidating market where size, brand name, and purchasing power increasingly matter—and where the world's most efficient retailer is making a big move. Wal-Mart, whose supermarket-category sales are estimated to be at least $38 billion, has been steadily expanding north into Ahold's territory. Both Kroger and Albertson's, meanwhile, have grown into giants, each with U.S. sales about twice Ahold's. Analysts worry that Ahold could end up being squeezed into a regional corner of the market without the financial firepower to compete nationally. "All this consolidation, combined with a massive Wal-Mart fear factor, has undermined Ahold's valuation," says Kate Calvert, a retail analyst at HSBC Securities.

Ahold executives say they will continue to pursue U.S. acquisitions, but only in markets contiguous to the company's operations in the East and South. Van der Hoeven is currently looking at three acquisitions, all larger than the proposed Pathmark deal, in states such as Florida and Texas. Eventually, he plans to move West, though van der Hoeven says "a leap across the Rockies seems a little far for now."

NET THREAT. Meanwhile, van der Hoeven plans to meet the Wal-Mart threat by wooing a different kind of shopper. "We are differentiating ourselves from Wal-Mart," he says. In the southern U.S., where the two companies meet head-on, Ahold has moved BI-LO upmarket, emphasizing fresh foods and ready-to-serve meals. "Over the last three years, BI-LO's performance has improved even as Wal-Mart has moved in with supercenters," says Ahold-USA's Tobin. "They hurt the mom-and-pa chain, not us."

Even so, Ahold faces a new challenge: the Internet. Wal-Mart recently announced it was creating a separate Net company with venture-capital firm Accel Partners, and e-tailers such as WebVan and priceline.com are making huge investments in online grocery ventures. Ahold says it, too, is gearing up for the e-revolution. It has forged a joint venture with e-tailer Peapod Inc. and expects online sales to rise from 1% to as much as 5% of its total within a few years. Van der Hoeven isn't worried about an Internet startup stealing the business. "If we talk about fresh fish, fruit, milk, and groceries, I think consumers will only trust local retailers with whom they already are familiar." Maybe. But that still leaves the question of how many of those local retailers Ahold will be allowed to put in its global shopping cart.

By William Echikson in Brussels, with Amy Borrus in Washington and Wendy Zellner in Dallas

AHOLD'S U.S. SHOPPING SPREE

1988 First National Supermkts Inc. (Finast), Cleveland, $220 million

1991 Tops Markets Inc., Buffalo, $450 million

1994 Red Food Stores Inc., Chattanooga, Tenn., $129 million

1995 Mayfair Supermarkets Inc., Elizabeth, N.J., $188 million

1996 Stop & Shop Cos., Boston, $3 billion

1998 Giant Food Inc., Landover, Md., $2.1 billion

1999 Failed $1.7 billion bid for Pathmark Stores Inc., Carteret, N.J.*

*Ahold walked away from deal after FTC raised concerns about company's heavy concentration in the Northeast

DATA: ROYAL AHOLD

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MUTUAL FUNDS: WHAT'S WRONG

To keep pulling in investors, managers must lower costs and deliver the goods

Investors are losing their appetite for mutual funds. Despite a fifth knockout year in a row for the stock market and an apparent snapback in fund performance, people are putting far fewer dollars into mutual funds than they did a few years ago. Sure the numbers are huge—equity funds took in an estimated $170 billion last year. But that's 30% below that of two years ago (chart, page 69).

Stock market awareness has never been higher, and the baby boom generation's need to gather assets for retirement has never been greater. Yet investors are seeking alternatives to mutual funds. Cheap online trading and the lure of quick riches draws some. Wealthier individuals, many of whom amassed their fortunes with the help of funds, now have enough money to hire investment managers to run customized stock portfolios. And many large employers, which adopted mutual funds for their 401(k) plans earlier in the decade, are increasingly casting them aside.

What's wrong with mutual funds? In part, they charge too much for their service, they often stick investors with unwanted tax bills, and the fund companies themselves have flooded the marketplace with products that are often difficult to differentiate and understand. "Investors are confused," says Lawrence J. Lasser, CEO of Putnam Investments Inc. "There are too many funds." But most of all, it's a question of performance. In the greatest bull market in history, the funds have too often failed to deliver the goods.

The mutual-fund industry, which controls more than $6 trillion in equity, bond, and money-market funds, is in no danger of withering away. Funds meet the needs of millions with no interest in online trading or only modest sums to invest. Still, the stocks of mutual-fund companies are underperforming the stock market, and that's a signal that there are problems in the industry. "Mutual funds used to be the investment of choice," says A. Michael Lipper, chairman of Lipper Inc., a fund data and research company. "Now, it's more the investment people use when they have no other choices."

Funds could win back investors if they improved their returns. Sure, over the past five years, the average fund earned 19% a year, a rate at which $10,000 grows into nearly $24,000. But relative to the Standard & Poor's 500-stock-index funds, which don't pick stocks but just buy those in the index, that's woeful. An index-fund investor would have $35,000—a 28.5% compounded average annual return. In all, just 7% of all equity funds beat the S&P over the past five years. Even subtracting foreign and specialty funds, the numbers don't get much better. Just 15% of U. S. diversified funds beat the index.

SKEWERED AVERAGE. Mutual-fund performance has brightened of late, and 1999 was the first time since 1993 that the funds beat the S&P, which earned a 21% total return. Thanks to a boom in small and mid-cap stocks, U. S. diversified funds clocked a 27.7% return for the year. Add in the triple-digit returns earned by many technology and some international funds, and the all-equity average jumps to 31.2%.

But the average is deceptive. The median fund return—half of them did better, half worse—is just 20.9%,

which suggests the huge returns of a few funds is skewing the average upward. In most years, the median and average returns are no more than a few percentage points apart.

So why have returns not been better? The most common explanation: The stock market swings back and forth between the large-cap stocks that dominate the index and smaller and mid-cap stocks favored by the mutual funds. The problem was that in the latter half of the 1990s, the swing to large-cap was more prolonged and extreme than in previous cycles.

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It's a lame excuse. Fund managers failed to pick up on how the economy and the stock market were changing and how the pricing pressures of a disinflationary environment and increasing globalization favored the very largest companies.

MISSED THE BOAT. Five years ago, only about 2% of the mutual funds had portfolios whose median market capitalization was greater than that of the S&P 500, says Don Phillips, CEO of Morningstar Inc. "So when big-cap stocks led the way, the funds didn't own enough of them." Or even if they did have big stocks, they did not own them in proportion to the stocks' weight in the index.

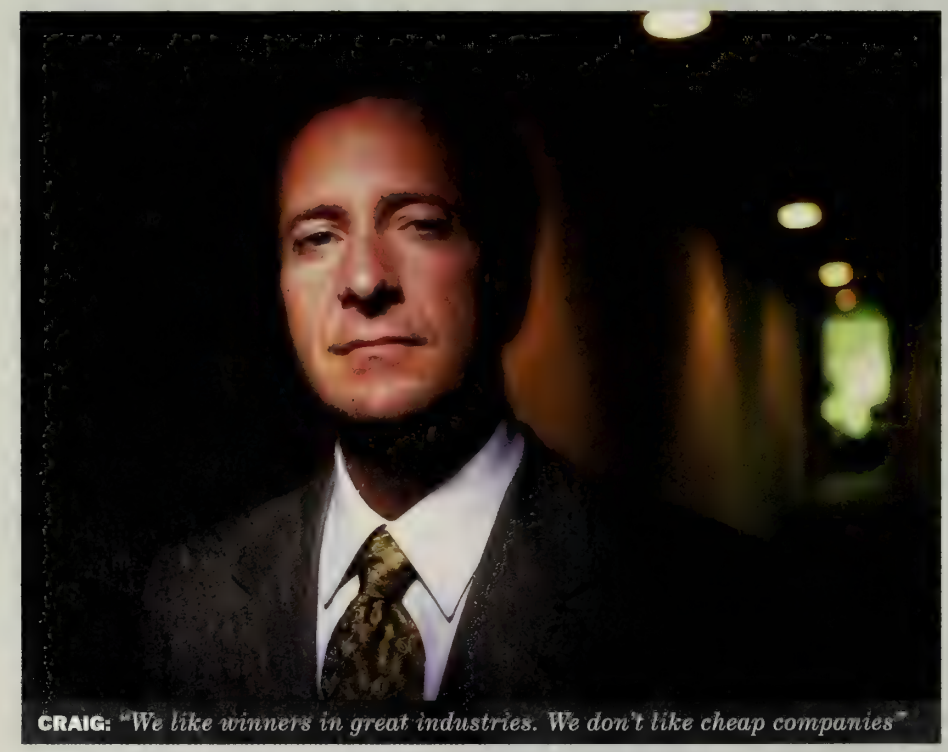
Those fund managers who caught the big-cap wave—and the subsequent surge in technology stocks, which reflected the information revolution transforming the economy—made bundles for shareholders. Getting those two moves right propelled Janus Funds from a midsize firm to one of the industry's largest (box).

Janus was clearly in the minority. "The fund industry blew the technology boom, too," says Phillips. "You'd be surprised how many fund managers tell us they don't buy technology because it's too risky or they don't understand it. It's like saying: 'I don't understand the age in which I live.'"

Changing behavior isn't easy. Most funds sell a style of management, a stock selection process, or a discipline that's worked well over time. When it stops working—and that's what happened to scores of value funds over the past few years—the managers usually stick to their systems and wait.

But what if the economy and the stock market have changed in a way that makes the manager's system obsolete?

HOW JANUS MADE MINCEMEAT OF ITS RIVALS



CRAIG: *"We like winners in great industries. We don't like cheap companies"*

Most years, the mutual-fund performance derby is a game of inches. Fund companies gain bragging rights—and attract investors' dollars—if they manage to beat the competition by just a percentage point or two. But 1999 was no ordinary year for the markets, which saw widely disparate returns between the top-performing stocks and the laggards. And no fund company took advantage of the trend better than Janus Funds. The Denver company annihilated the competition by making huge bets on some of the stock market's biggest gainers.

Last year, Janus' 19 U.S. diversified equity funds produced a 76.5% average return, according to Morningstar Inc. That was nearly twice as much as the 39.9% average return of the second-best fund complex, the AIM Family of Funds. (table). And it crushed the funds that are tied to the Standard & Poor's 500-stock index, which was up 21%. Seven Janus funds earned "A" ratings, according to BUSINESS WEEK's Scoreboard (page 86). "We were in the right co nies in the right industries at the r time," says James Craig, chief inve ment officer at Janus.

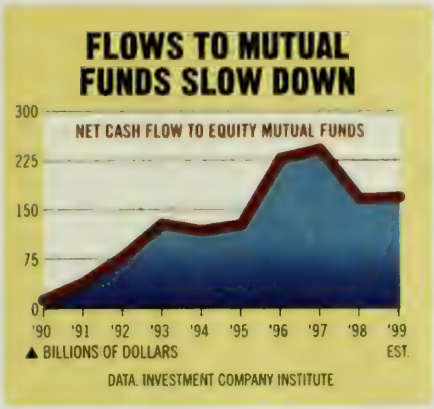
Instead of focusing on strict valu criteria, Craig began three years ag placing big bets on leading compani diverse markets, with much less co for price. Most of Janus' closely kni ble of 21 fund managers followed su buying many of the same big-name stocks, including Cisco Systems, Mi crosoft, Sun Microsystems, and Ger Electric. While most of Janus' retu came from large tech companies, th were also boosted by a handful of I net stocks, such as America Online and eBay Inc., along with winners i tail, finance, and health care.

GROWTH SPECIALIST. Its strong res are quickly moving Janus up the ra of fund industry leaders. At a time when new cash flowing into mutual funds is slowing industrywide, asse under management at Janus last y soared 130%, to $249 billion, makin Janus the fifth-largest fund manage That's up from being 12th-largest j three years ago, when it had assets $68 billion. New cash flowing into J last year outstripped all but Vangu Group, whose index funds remain p lar with many investors.

For a long time, Janus has been specialist in growth stocks, the hot part of the market for much of the 1990s decade. But Craig says that decision to focus only on stocks tha market leaders was triggered by h recognition of a "dynamic shift in t economy." With interest rates at su

RAY NG

That's a tough call to make, but fund managements need to consider it. "People tend to dismiss what doesn't fit into their models," says Mark Finn, an investment consultant hired by the Lindner Funds last year to overhaul an investment process that was failing. "But you also have to ask if the model is missing something." Finn says he didn't abandon Lindner's tradition of value investing, but "we had to make it more sensitive to current conditions." Robert C. Doll, chief investment officer of Merrill Lynch Asset Management, says following a discipline is important, "but so is bending it when necessary. In a growth-oriented market like we've had, I'm more willing to pay a higher price for a company with good growth prospects."



All told, there's a good case to be made that the funds and the fund industry have been too timid, and funds have underperformed because of it. Not that risk-aversion is a sin. But smart investing is also knowing when to rev up and when to dial back on risk.

Within mutual funds, managers tend to use risk controls, such as limiting the amount of the fund that can be devoted to a particular sector such as technology. If this one fund were your only holding, that may make sense. But most investors today hold multiple funds, and what really counts is not the risk of one fund but how the funds in a portfolio fit together.

BETTING BIG. The truth is risk-aversion may be more a business decision for the fund management company than an investment decision. Fund managers are compensated based on the assets under management, so the incentive is to hold on to what they've got. Sure, if a big bet pays off, the assets will grow and money will cascade into the fund. Missing a big bet will have the opposite effect.

"Fund companies have a basic conflict of interest with fund investors," says Mark P. Hurley, CEO of Undiscovered

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d low levels, investors would pay r large, industry-leading stocks strong earnings growth even if had high price-earnings ratios, be- they were a better value than s, he reasoned. Instead of p-e ra- Janus managers now look closely company's return on invested capi- a key indicator of future growth. the bigger the growth prospects, etter the investment. "We like ers in great industries. We don't heap companies in great indus- " says Craig.

e potential downside to Janus' ap- h is that it is narrowly focused, ac- ng to Christine Benz, a Morn- ar analyst who tracks Janus. The s Fund, for example, has 40% of its s in its top 10 stocks, and owns some 60 stocks in all. Fidelity In- nents' Magellan, by contrast, has of its assets in its top 10 stocks and 341 stocks in all. Janus funds also carry unusual risk because they have "sky-high" p-e ratios, making them vulnerable if a sudden market shift punishes high p-e stocks, Benz says.

Craig, who recently stepped down as manager of the Janus Fund, is unfazed. He's worried about the possibility of rising interest rates causing a market downturn in the first half of 2000, and he's advising Janus managers to keep as much as 10% of their funds in cash. In recent months, he reduced the fund's technology stake to about 24%, down from 29%, and boosted stakes in nontech names including McDonald's Corp. and Bank of New York.

"MOST DYNAMIC." Craig believes the "adjustment" in the market in the first half will set the stage for more gains ahead—and he counsels his team to pick up good values during downturns. The best investments will continue to be "the best companies in the most dynamic industries," he says. For example, about a dozen Janus funds together own 7.75% of Time Warner Inc., and the Jan. 10 runup in that stock in the wake of the proposed merger with AOL added some $2 billion in net assets.

Craig has certainly been right with his market wisdom so far. But he may want to consider what happened the last time one fund complex made mincemeat of the competition using a similar investment approach. In 1993, Fidelity's big growth funds on average doubled the return of the Standard & Poor's 500-stock index, due in large part to concentrated bets on key sectors, including high technology, energy, and foreign stocks. Eighteen months later, Fidelity's swing-for-the-fences approach backfired when the targeted sectors went south.

Janus has the magic touch at the moment. But in the fund business, it's never easy for anyone to stay on top.

By Geoffrey Smith in Boston

Janus Tops the Charts

The 10 largest equity fund managers

D FAMILY	TOTAL RETURN*	FUND FAMILY	TOTAL RETURN*	FUND FAMILY	TOTAL RETURN*	FUND FAMILY	TOTAL RETURN*
1-YEAR		3-YEAR		5-YEAR		10-YEAR	
IUS	76.5%	JANUS	46.4%	JANUS	36.8%	JANUS	23.9%
1	39.9	PUTNAM	25.5	PUTNAM	26.8	PUTNAM	19.0
TNAM	38.9	AIM	25.0	AIM	25.4	AMERICAN CENTURY	18.2
ERICAN CENTURY	36.0	AMERICAN	24.3	VANGUARD	25.4	AIM	17.9
NKLIN	33.5	AMERICAN CENTURY	23.9	AMERICAN	23.9	FIDELITY	16.6
ERICAN	27.2	VANGUARD	22.8	FRANKLIN	23.6	VANGUARD	16.6
ELITY	26.2	FIDELITY	22.7	AMERICAN CENTURY	23.6	AMERICAN	16.5
GUARD	23.0	AMERICAN EXPRESS	19.6	FIDELITY	22.9	AMERICAN EXPRESS	15.9
ERICAN EXPRESS	22.1	FRANKLIN	18.4	AMERICAN EXPRESS	22.0	T. ROWE PRICE	15.0
ROWE PRICE	15.9	T. ROWE PRICE	16.6	T. ROWE PRICE	21.5	FRANKLIN	14.3

verage annual total returns include appreciation plus reinvestment of dividends and capital gains before taxes. Data is for U.S. Diversified Equity Funds, excluding index funds of the 10 rgest managers of equity funds.

DATA: MORNINGSTAR, U.S. DIVERSIFIED EQUITY FUNDS RANKED THROUGH DEC. 31, 1999

Managers Funds. "The companies' have an economic incentive to gather and retain assets. Shareholders' interest is maximizing performance."

The interests of the two need to be drawn closer. One way is to put funds on a "fulcrum" fee: The funds win a higher management fee if they exceed a benchmark but give up a portion if they don't. Fidelity, Vanguard and a few others have funds with these incentives, but for the most part they have not been widely adopted by the industry.

And if an incentive fee is good for the fund managers, why not for the independent directors who are paid to represent shareholder interests on boards? Right now, directors are not even required to own shares in the funds they oversee, although an industry task force on directors did recommend last year that they do so.

TOO MANY FUNDS. Another way to improve returns is to shut a fund's doors to new investors before it gets too large to manage effectively. This is especially critical for funds investing in small companies, where too much money crimps returns. At what point does size start to slow the fund? It could be as little as $100 million or $200 million for small-cap funds and several billion dollars for large-cap.

Many funds need to close down—period. John Rekenthaler, research director for Morningstar, estimates that at least half of all equity funds are below $50 million in assets, probably not profitable for their sponsors, and with little likelihood of ever getting much bigger. Liquidating or merging them would go a long way toward cleaning up the clutter of funds that daze and confuse prospective investors and would lower overhead for the firms.

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That would give fund companies latitude to lower expenses for shareholders, who by and large haven't benefited much from the economies of scale that go with the sixfold increase in assets over the past decade (chart). The average expense ratio for equity funds is 1.55%, up from 1.45% a decade ago, according to Morningstar. Bond fund expenses have shot up from 0.84% to 1.08%.

Why so high? For equity funds, at least, it's the bull market. With prospects for 50% or 100% returns, who's paying attention? Yet the problem in paying higher expenses is that it does not gain investors anything. "In most industries, you pay a higher price to get higher quality," says Charles A. Trczinka, a finance professor at the State University of New York at Buffalo. "That's not so here." In fact, some fund families with the better returns are also those with lower than average expenses, such as Fidelity, Janus, American, and Vanguard, the company with the lowest cost. Expenses weigh even more heavily on bond funds, where the potential return is in the single digits. No wonder inflows to bond funds have slowed to a trickle over the past five years.

"There's no price competition among fund companies"

— JOHN C. BOGLE, Vanguard Group

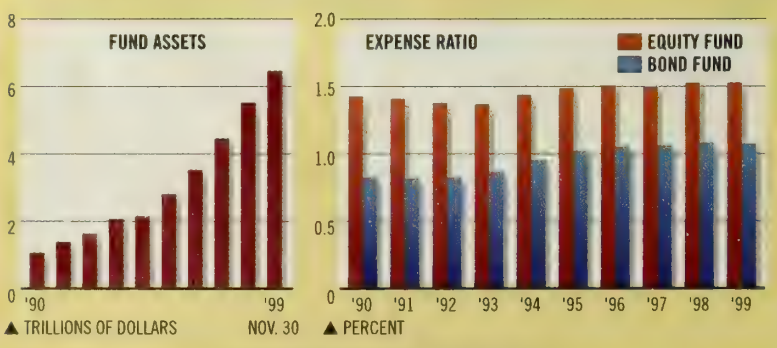
AT WHAT COST? Another reason for rising expense ratios are 12(b)-1 fees. These fees, which show up in the expense ratio, pay for the fund's advertising or distribution costs or to compensate those who sell the fund. These fees can be as little as 0.25% or as high as 1% per year—and they come right out of the fund's assets. For funds that sell through brokers and other intermediaries, these fees supplement or supplant the sales charges, or "loads," which have fallen by more than half over the past 20 years. So the broker's compensation is increasingly coming out of the fund, where in the past the shareholder paid it up front.

This shift distorts the expense ratios, according to the Investment Company Institute, the funds' trade association. So the ICI takes a different tack. It rolls sales charges and expenses together to calculate the "cost" of fund ownership. The ICI also weights the expenses by the size of the fund, so the 0.18% expense ratio for the $104 billion Vanguard 500 Index counts 1,000 times more than the 1.78% expense ratio of the $104 million Phoenix-Engemann Small-Midcap Growth Fund A.

With the ICI's approach, the funds' costs look like they're coming down. The cost of ownership for equity funds dropped from 2.25% in 1980 to 1.35% last year. But it's "consumers who are lowering their costs, not the producers," says John C. Bogle, founder and former chairman of Vanguard Group, a critic of the high costs in the fund industry. Investors do that by putting their money in lower-cost funds, like Vanguard index funds. "There's no price competition among fund companies," says Bogle, who blames this situation, in part, on fund directors who put the interests of fund management ahead of those of the shareholders they represent.

But even using ICI numbers, the drop in the cost of investing in funds looks puny considering how sharply costs on the Street have fallen. For example, technology now enables individuals to trade stocks online for as little as a penny per share. A decade ago, even discounters were charging about 15¢, and full-service firms, anywhere from 30¢ to 50¢. It may be unrealistic to

ASSETS HAVE EXPLODED, BUT EXPENSES REMAIN HIGH



DATA: INVESTMENT COMPANY INSTITUTE, MORNINGSTAR INC.

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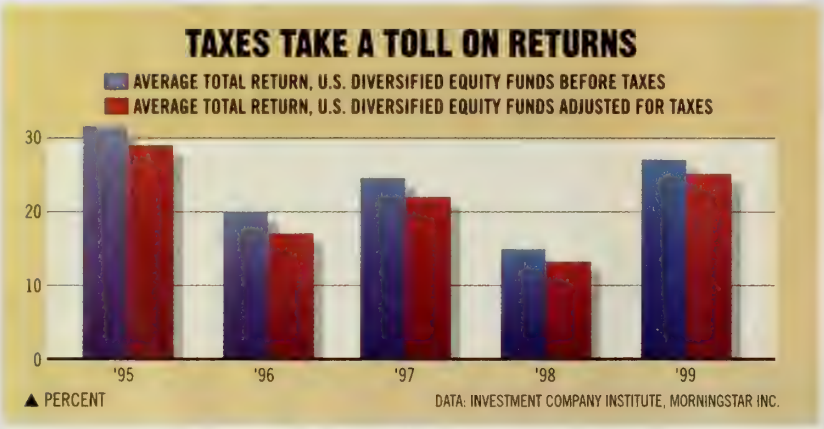
Better bookkeeping techniques by mutual funds could cut their tax burden–and bring down investors' costs

think the funds could cut their service costs by that much, since an online transaction is an automated service—and investment management, except perhaps for index funds, is not. But surely, the funds could use technology to give investors a break.

Certainly, separate account management is no less labor-intensive than mutual funds, and the cost of that service is dropping. That has enabled investors with six-figure portfolios to switch from mutual funds to their own customized portfolio of stocks for little or no additional cost.

TAX MAN COMETH. As an alternative to mutual funds, the separately managed account becomes especially attractive in January. That's when the inevitable 1099s arrive in the mail, notifying investors and the Internal Revenue Service of the taxable distributions the fund made the year before—and on which tax will be due. The gains are triggered when managers take profits—a process over which the fund shareholder has no control. Over the past five years, taxes have effectively cost fund shareholders about 2.3 percentage points a year, about 10% of the return (chart). With separate accounts, portfolio managers can work with clients on timing gains to minimize taxes.



Mutual funds have no choice about distributing their gains, but critics argue they don't do enough to lower them. One way is through better bookkeeping. Just as a tax-savvy investor would reduce the size of a profitable block of stock by selling his highest-cost shares, fund companies need to do the same. Yet not all funds follow the "highest in, first out" accounting. They should. Joel S. Dickson, a tax specialist at Vanguard, says studies show that HIFO accounting can save shareholders as much as 1% a year in costs.

Another way to cut the tax bill is to trade less often. The average equity fund has a turnover rate of 90%, which means that a $1 billion fund does about $900 million worth of trades each year. Besides triggering gains, trading incurs commission costs of about 5¢ a share—that's much higher than most individuals pay for online brokerage. Why so high? In part, by paying higher commissions, investment management companies can also use some of the commission—called "soft dollars"—to pay for research, data services, or even newspapers and magazines. Think of it this way: It's sort of like frequent-flier miles for the fund managers, except they use the shareholders' money.

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SHAKING THE MARKET. Commissions are not the only costs involved in trading—there's also what is commonly called "market impact cost," an additional cost incurred when the fund's buy or sell order itself changes the price of the stock. For example, if a mutual fund wants to sell a large block of stock, it may have to accept a lower price in order to do the trade. Likewise, if the fund is shopping for a large block of shares, it will have to pay more for it.

Market impact cost is not something you find in a fund's financial statement. But it can be detected through analysis of the trading records. The cost to shareholders can be high—1% to 5% a year, depending on the size and liquidity of the stocks that a fund trades and the style of trading. Funds that invest in small-cap stocks have higher impact costs than those that buy large-caps, says Nicolo Torre, a managing director at BARRA Inc., an investment consulting firm. And funds that practice a momentum strategy—buying what's hot—usually end up paying more than value investors that buy and hold. The only way to cut market impact costs, he says, is through fewer trades. "Ten percent of the trades reflect 90% of the market impact cost," says Torre. "Halve the number of trades, and you can significantly lower the fund's market impact cost."

Trading behavior is not only dependent on the portfolio manager's investment decisions. Sometimes shareholders rushing in or running out will force the manager's hand. Certainly, that's the case with Internet funds, which likely bear a huge market impact cost for buying thinly traded Internet stocks in a hurry. Of course, the returns have been so large that the cost is hardly noticed. However, if the Internet stocks tank and the funds are hit with a wave of redemptions, the impact cost will be huge—and without any gains to offset them.

MAKING PATIENCE PAY. Mutual funds have become more sensitive in recent years to traders who dart in and out of the funds. In some cases, the traders have been booted out, and in others, redemption fees have been instituted to discourage short-term switching. Industrywide, redemption rates are on the rise.

Slowing down the trading would also enable funds to be more fully invested and keep less cash in the till for redemptions. That cash is a drag on performance, since it earns less than it would if it were invested in stocks. Over the long haul, lower cash levels should improve returns.

Mutual-fund companies are quick to point their finger at such bad practices of investors as excessive trading in and out of funds. The fund companies could do more to encourage good investor behavior, however. One idea: Create a separate class of shares for investors who have been in the fund for, say, five or ten years, a move that would allow the fund company to give the shareholders a break on expenses. Or, asks SUNY's Trczinka, what about giving a special dividend—payable in shares only—to long-term investors on the anniversary of their investments?

That could help improve the relationships between fund companies and their investors. But it's not a substitute for what really needs to be done: cutting costs and raising investor returns.

By Jeffrey M. Laderman in New York, with Amy Barrett in Philadelphia

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OUR ANNUAL GUIDE TO MUTUAL FUNDS

Big gains count, but so does risk, in our yearly guide to the best equity funds

What makes a great mutual fund? High returns, of course. And on that count, 1999 produced a bumper crop of winners: 157 equity funds posted gains of 100% or more, 18 broke the 200% barrier, and two beat 300%. Sure, we're impressed. But are these really the best funds?

Many of those returns came by taking big risks, such as investing in spanking new dot.com outfits or in small Japanese companies. Over the past year, the funds that took those risks were more than amply rewarded. But mutual-fund investing is more than a one-year proposition, and it remains to be seen if those stellar results can be maintained over the long haul—or even through 2000.

To help you get a broader and more in-depth look at fund performance, we bring you the BUSINESS WEEK Mutual Fund Scoreboard. This 15th edition of the Scoreboard, prepared for BUSINESS WEEK by Morningstar Inc., draws on a database of nearly 3,000 equity funds.

NITTY-GRITTY. That's not every single fund. For funds with multiple share classes, we only report on the largest. And we screen out institutional funds unless they're available to individual investors through one of the mutual-fund supermarkets, such as those operated by Charles Schwab & Co. and Fidelity Brokerage Services. And we do not put a fund in the Scoreboard until it has been running for at least one year.

The Mutual Fund Scoreboard contains a trove of data. We have total returns, both pretax and aftertax, for the past year, plus the three-, five-, and ten-year periods where available. We look inside the funds' portfolios, and report on the cash level, price-earnings ratios, turnover, and largest holdings. There are also the nitty-gritty operational data, such as assets under management, and the sales charges and operating expenses. Next week, the Scoreboard turns to bond funds, and in two weeks, closed-end funds.

The Scoreboard that starts on page 86 has 885 funds. That covers everything from the $104 billion Vanguard 500 Index, which just supplanted Fidelity Magellan as the largest fund (table), down to Kemper New Europe M, with just $259 million. Those funds account for about 95% of the assets of all our Scoreboard funds. Visit our Web site, www.businessweek.com, and you'll find those, plus over 2,000 more, in an interactive version of the Scoreboard. If you're not familiar with the online Scoreboard, you should be. The returns—and the ratings—are updated every month.

The highlight of our Scoreboard, both in print and online, is the BUSINESS WEEK rating. We don't rush to judgment on a fund, even if it has produced dazzling results of late. Look at Lexington Troika Russia Fund, which gained 159.8% last year after losing 83% in 1998. If you had bought the fund at the beginning of 1998, your account would have to gain another 56% before you would break even. That's why we wait to see five years' worth of returns. We can assess the fund under a variety of market conditions.

But we don't stop there. Those five-year returns have to be adjusted for risk. For each, we look at every month's return and match it against the comparable month's return on Treasury bills. The more often the fund lags behind the T-bill return, the greater the risk adjustment. Similarly, the larger the underperformance, the greater the markdown for risk. After ad-

> "[Boosting tech holdings] has made the fund more volatile than it was in the past...but tech is the place to be" — SUSAN BLACK, Warburg Pincus

justing the returns, we rerank the funds and score them on a curve. The top 12.5% get A's, our highest rating. In the current Scoreboard, which covers 1995 through 1999, 121 funds made the A list (table).

These top-rated funds span a wide range of investment styles and returns. At the high end, there's Invesco Telecommunications Fund, with a five-year average annual return of 46.2%. At the low end: Gabelli ABC Fund, with a five-year average of just 10.4%. Thirty-five of the funds are domestic hybrids, which mix stocks, bonds, and sometimes cash. Such mixes rarely beat all-equity funds when the bulls are stampeding on Wall Street, but bonds and cash do temper month-to-month volatility. That's why hybrids—they often have "Balanced" or "Asset Allocation" in their names—fare well when their returns are adjusted for risk. Every one of the 35 has a very low risk rating.

Special Report
MUTUAL FUNDS

Large-cap stocks have dominated the market for four of the past five years, so large-cap funds also stand out in the ratings. Thirty-three are large-cap blend funds, with holdings that tend to look a lot like those of the Standard & Poor's 500-stock index. Among A-list funds are nine S&P index funds, and three more "enhanced" index funds that tweak the S&P to squeeze a little extra return: PIMCO StockPlus Institutional, Smith Breeden U.S. Equity Market Plus, and UAM Analytic Enhanced Equity Institutional.

Nineteen are large-cap growth funds, which have soared along with the technology, telecommunications, and health-care stocks they favor. Three of them are index funds as well. Rydex OTC Investors tracks the Nasdaq 100 Index; Vanguard Growth Index tracks the growth stocks in the S&P 500; and Wilshire Target Large Company Growth tracks a segment of the Wilshire 5000. Value stocks are another story. Large-cap value funds, which have trailed large-growth badly for the past two years, accounted for just four of the top funds. One, Legg Mason Value Premier Shares, beat the S&P, and all have beaten their large-cap value competitors between 1995 and 1999.

Thanks to a strong pickup in most global markets, international funds have returned to the A list. Two are world funds, which include U.S. stocks in their portfolios, and two are foreign funds, which do not. Two specialize in European

The A List

These equity funds have earned A's for delivering the best risk-adjusted total returns over the past five years.

FUND	AVERAGE ANNUAL TOTAL RETURN*	CATEGORY	RISK
ACCESSOR GROWTH ADV.	31.7%	Large-cap Growth	Average
AIM GLOBAL CONSUMER PRODS. & SVCS. B**	30.3	Mid-cap Growth	Average
AIM GLOBAL UTILITIES A**	23.0	Utilities	Very low
ALLEGHANY/CHICAGO GROWTH & INCOME	29.2	Large-cap Growth	Low
AMERICAN CENTURY EQUITY GROUP INV.	28.2	Large-cap Value	Low
AMERICAN CENTURY INCOME & GROWTH	28.0	Large-cap Value	Low
ATLAS GROWTH & INCOME A	27.4	Large-cap Growth	Low
ATLAS STRATEGIC GROWTH A**	25.9	Mid-cap Value	Low
BARCLAYS GLOBAL LIFEPATH 2010**	15.3	Domestic Hybrid	Very low
BRIDGES INVESTMENT**	26.3	Large-cap Blend	Low
BRIDGEWAY SOCIAL RESPONSIBILITY**	31.8	Large-cap Growth	Average
BT INVESTMENT EQUITY 500 INDEX	28.3	Large-cap Blend	Low
BT INVESTMENT LIFECYCLE LONG**	19.1	Large-cap Blend	Very low
BT INVESTMENT LIFECYCLE MID RANGE**	14.8	Domestic Hybrid	Very low
BT INVESTMENT LIFECYCLE SHORT RANGE**	10.5	Domestic Hybrid	Very low
CALDWELL & ORKIN MARKET OPPORTUNITY**	17.7	Domestic Hybrid	Very low
CALIFORNIA INVESTMENT S&P 500**	28.4	Large-cap Blend	Low
CLIPPER	21.5	Large-cap Value	Very low
COLUMBIA BALANCED	17.6	Domestic Hybrid	Very low
COLUMBIA COMMON STOCK	25.8	Large-cap Blend	Low
DOMINI SOCIAL EQUITY	29.6	Large-cap Blend	Low
DREYFUS PREMIER BALANCED A**	20.0	Domestic Hybrid	Very low
DREYFUS S&P 500 INDEX	27.9	Large-cap Blend	Low
EVERGREEN CAPITAL BALANCED C**	17.6	Domestic Hybrid	Very low
FEDERATED WORLD UTILITY A**	24.8	Utilities	Very low
FIDELITY ASSET MANAGER: INCOME	10.5	Domestic Hybrid	Very low
FIDELITY FUND	27.9	Large-cap Blend	Low
FIDELITY GROWTH COMPANY	34.7	Large-cap Growth	Average
FIDELITY SELECT UTILITIES GROWTH	28.7	Utilities	Very low
FIDELITY SPARTAN MARKET INDEX	28.2%	Large-cap Blend	Low
FIDELITY UTILITIES	25.7	Utilities	Very lo
FIFTH THIRD QUALITY GROWTH A**	28.3	Large-cap Blend	Low
FIRST FUNDS GROWTH & INCOME III**	25.9	Large-cap Blend	Low
FLAG INVESTORS COMMUN. A	41.2	Communications	Averag
FRANKLIN CALIFORNIA GROWTH A	36.9	Mid-cap Growth	Averag
FRANKLIN GROWTH A	20.6	Large-cap Blend	Very lo
GABELLI ABC**	10.4	Mid-cap Growth	Very lo
GABELLI ASSET	23.8	Mid-cap Blend	Low
GABELLI GLOB. INTERACTIVE COUCH POTATO	39.3	Communications	Low
GABELLI GLOBAL TELECOMMUNICATIONS	32.3	Communications	Low
GABELLI GROWTH	33.8	Large-cap Growth	Low
GABELLI WESTWOOD BALANCED**	17.9	Domestic Hybrid	Very lo
GALAXY ASSET ALLOCATION RET. A	17.8	Domestic Hybrid	Very lo
GALAXY II LARGE CO. INDEX RET.	28.1	Large-cap Blend	Low
GATEWAY	11.8	Domestic Hybrid	Very lo
GUARDIAN ASSET ALLOCATION A**	20.0	Domestic Hybrid	Very lo
GUARDIAN PARK AVENUE A	29.3	Large-cap Blend	Low
HERITAGE CAPITAL APPRECIATION A**	30.9	Large-cap Blend	Low
IDEX JCC GLOBAL A	30.2	World	Low
INVESCO BALANCED	20.9	Domestic Hybrid	Very lo
INVESCO TELECOMMUNICATIONS	46.2	Communications	Averag
INVESCO UTILITIES**	21.2	Utilities	Very lo
ISG LARGE CAP EQUITY A	28.7	Large-cap Growth	Low
J.P. MORGAN DIVERSIFIED	18.0	Domestic Hybrid	Very lo
JANUS BALANCED	23.7	Domestic Hybrid	Very lo
JANUS FUND	31.4	Large-cap Growth	Low
JANUS GROWTH & INCOME	36.4	Large-cap Growth	Averag
JANUS MERCURY	41.6	Large-cap Growth	High

"[Small- and mid-cap stocks] are where the growth characteristics and valuations are better right now" — EDSON BRIDGES, Bridges Investment Fund

stocks, and one is an international hybrid, mixing stocks and bonds. None of the diversified emerging-markets funds made it to the A list, even though they were up strongly in the past year—72.1%. Because of heavy losses in 1997 and 1998, the long-term results are poor indeed—an average of 4.4% a year over the past five years.

There's little overlap between the funds on the A list and those that earned triple-digit returns last year. Only four funds made both lists: Invesco Telecommunications, Gabelli Global Interactive Couch Potato, Janus Mercury, and Rydex OTC Investors. The Invesco fund was up 144.3% last year and Gabelli, 116.1%, but the other two barely made it over the 100% line.

CHECKERED PASTS. Why so few? Only about one-third of them have been around long enough to earn a rating. And many with enough history have a checkered past. Take Warburg Pincus Japan Small Companies Common Shares, which gained 328.7% last year. It lost money in three of the past five years, including a 25.4% loss in 1997. That's the main reason why the fund's rating is still only a D—our second-worst.

Not a single technology fund made the A list, even though tech funds are the top-performing category of funds over the past 1-, 3-, 5-, and 10-year periods (page 82). The high-performance Internet-specific funds within the category are too new to be rated, and the returns of the more seasoned tech funds fall a tad short when adjusted for risk. The best-rated of them is Invesco Technology II, which earned an overall B+ rating, the second-highest. That fund logged a 144.9% return last year and an average annual return of 43.8% over the past five.

Conspicuous in their absence are small-cap funds. Only one, Weitz Hickory Fund, made it to the A list, and it's closed to new investors. There are many worthy funds that don't make it to the A list because their investment style is out of favor. For that reason, we also rate funds against other funds in the same category. Looking for a small-cap growth fund with a history of top risk-adjusted returns? You might consider the Baron Growth, Bridgeway Aggressive Growth, or Fremont U.S. Micro-cap funds, which are among those that earned A's when rated against their peers (table). And contrarian-minded investors might be looking to buy small-cap value funds, which have badly lagged behind the others for the past two years. Our ratings show Third Avenue Value and Royce Total Return to be among the best.

The ratings system treats well-known and unknown funds alike. Fidelity, Janus, and Vanguard funds regularly show

)	AVERAGE ANNUAL TOTAL RETURN*	CATEGORY	RISK
IUS OVERSEAS	32.0%	Foreign	Low
IUS TWENTY	45.2	Large-cap Growth	Average
IUS WORLDWIDE	30.9	World	Low
MPER NEW EUROPE M	30.0	Europe	Low
IG MASON VALUE PRIMARY SHARES	38.0	Large-cap Value	Average
GNA GROWTH & INCOME**	26.0	Large-cap Blend	Low
INSTAY MAP-EQUITY I**	24.0	Mid-cap Blend	Very low
IRS & POWER BALANCED**	18.6	Domestic Hybrid	Very low
S BALANCED INSTL.	18.7	Domestic Hybrid	Very low
XUS LAUREATE INV.**	23.4	World	Low
M BALANCED**	19.0	Domestic Hybrid	Very low
M EQUITY INVESTMENT**	26.8	Large-cap Blend	Low
RGER	11.6	Domestic Hybrid	Very low
RRILL LYNCH FUNDAMENTAL GROWTH B	29.7	Large-cap Growth	Low
S CAPITAL OPPORTUNITIES A	31.9	Large-cap Blend	Low
S MASS. INVESTORS GROWTH. A	35.3	Large-cap Growth	Average
S UTILITIES B	25.6	Utilities	Very low
TIONS ASSET ALLOCATION INV. A**	19.1	Domestic Hybrid	Very low
RTHERN SELECT EQUITY	34.0	Large-cap Growth	Average
PENHEIMER GLOBAL GROWTH & INCOME A	29.6	Int'l. Hybrid	Low
K WORLD	21.1	Domestic Hybrid	Very low
GRIM WORLDWIDE GROWTH C**	31.1	World	Average
MCO STOCKSPLUS INSTL.	28.8	Large-cap Blend	Low
EFERRED ASSET ALLOCATION**	18.9	Domestic Hybrid	Very low
ANTITATIVE GROWTH & INCOME ORD.**	30.9	Large-cap Blend	Average
NIER BALANCED**	20.5	Domestic Hybrid	Very low
NIER CORE EQUITY	30.0	Large-cap Blend	Average
GIONS BALANCED INVESTMENT**	15.8	Domestic Hybrid	Very low
YNOLDS BLUE CHIP GROWTH	39.1	Large-cap Growth	Average
DEX OTC INV.	56.6	Large-cap Growth	High
LOMON BROS. CAPITAL O**	28.4	Mid-cap Blend	Low
UDDER GREATER EUROPE GROWTH	28.4	Europe	Low
I INDEX S&P 500 INDEX E	28.3	Large-cap Blend	Low

FUND	AVERAGE ANNUAL TOTAL RETURN*	CATEGORY	RISK
SIT BALANCED**	20.8%	Domestic Hybrid	Very low
SMITH BREEDEN U.S. EQUITY MKT. PLUS**	28.0	Large-cap Blend	Low
SSGA GROWTH & INCOME	28.5	Large-cap Blend	Low
SSGA S&P 500 INDEX	28.3	Large-cap Blend	Low
SUNAMERICA GROWTH & INCOME B**	28.8	Large-cap Blend	Low
T. ROWE PRICE BALANCED	16.8	Domestic Hybrid	Very low
T. ROWE PRICE BLUE CHIP GROWTH	28.3	Large-cap Blend	Low
T. ROWE PRICE EQUITY INDEX 500	28.2	Large-cap Blend	Low
T. ROWE PRICE PERSONAL STRAT. INCOME**	13.5	Domestic Hybrid	Very low
UAM ANALYTIC DEFENSIVE EQUITY INST.**	21.2	Large-cap Blend	Very low
UAM ANALYTIC ENHANCED EQUITY INST.**	28.8	Large-cap Blend	Low
UMB SCOUT WORLDWIDE	20.0	Foreign	Very low
UNITED RETIREMENT SHARES A	20.5	Domestic Hybrid	Very low
VALUE LINE ASSET ALLOCATION	25.8	Domestic Hybrid	Very low
VANGUARD ASSET ALLOCATION	21.4	Domestic Hybrid	Very low
VANGUARD BALANCED INDEX	19.1	Domestic Hybrid	Very low
VANGUARD 500 INDEX	28.5	Large-cap Blend	Low
VANGUARD GROWTH INDEX	33.7	Large-cap Growth	Low
VANGUARD HEALTH CARE	27.8	Health	Low
VANGUARD LIFESTRATEGY CONS. GRTH.	14.9	Domestic Hybrid	Very low
VANGUARD LIFESTRATEGY INCOME	12.0	Domestic Hybrid	Very low
VANGUARD LIFESTRATEGY MOD. GROWTH	18.2	Domestic Hybrid	Very low
VANGUARD TAX-MGD. BALANCED	17.1	Domestic Hybrid	Very low
VANGUARD TAX-MGD. GROWTH & INCOME	28.6	Large-cap Blend	Low
VANGUARD U.S. GROWTH	30.3	Large-cap Growth	Average
WARBURG PINCUS CAPITAL APP. COMM.	33.1	Large-cap Blend	Low
WEITZ PARTNERS VALUE	29.6	Mid-cap Value	Very low
WEITZ HICKORY	36.9	Small-cap Blend	Low
WEITZ VALUE	28.9	Mid-cap Value	Very low
WILSHIRE TARGET LARGE CO. GROWTH INV.	33.8	Large-cap Growth	Low

*1995-99, pretax return, appreciation plus reinvestment of dividends and capital gains
**Fund data in Business Week Online

DATA MORNINGSTAR INC.

up among the top-rated, but so do lesser-known funds such as Warburg Pincus Capital Appreciation Common Shares, Franklin California Growth A, and Bridges Investment funds.

The $1.1 billion Warburg Pincus fund, run since 1995 by Susan L. Black, invests in both large-cap and mid-cap stocks. The fund earned 48.3% last year, with a well-timed boost in technology holdings at midyear. "That's made the fund more volatile than in the past," says Black, "but tech is the place to be." Tech now comprises about 40% of the fund, but Black says she is also broadening her roster to include financial and energy stocks.

For Conrad B. Herrmann, who runs Franklin's California fund, tech is almost always the place to be. The fund's charter says 65% of its holdings must be in companies headquartered in the Golden State, or with major operations there. "When we launched the fund 10 years ago, we never envisioned what would take place here in California with the technological and Internet revolution," says Herrmann. This mid-cap growth fund nearly doubled its shareholders' money last year. Herrmann says the fund, thanks to Silicon Valley, will continue to have a technology tilt. But he is also looking to broaden the fund by adding nontech stocks such as Clorox Co., the household-products company, Robert Half International, a temporary-staffing agency, and even a few utilities and real estate investment trusts.

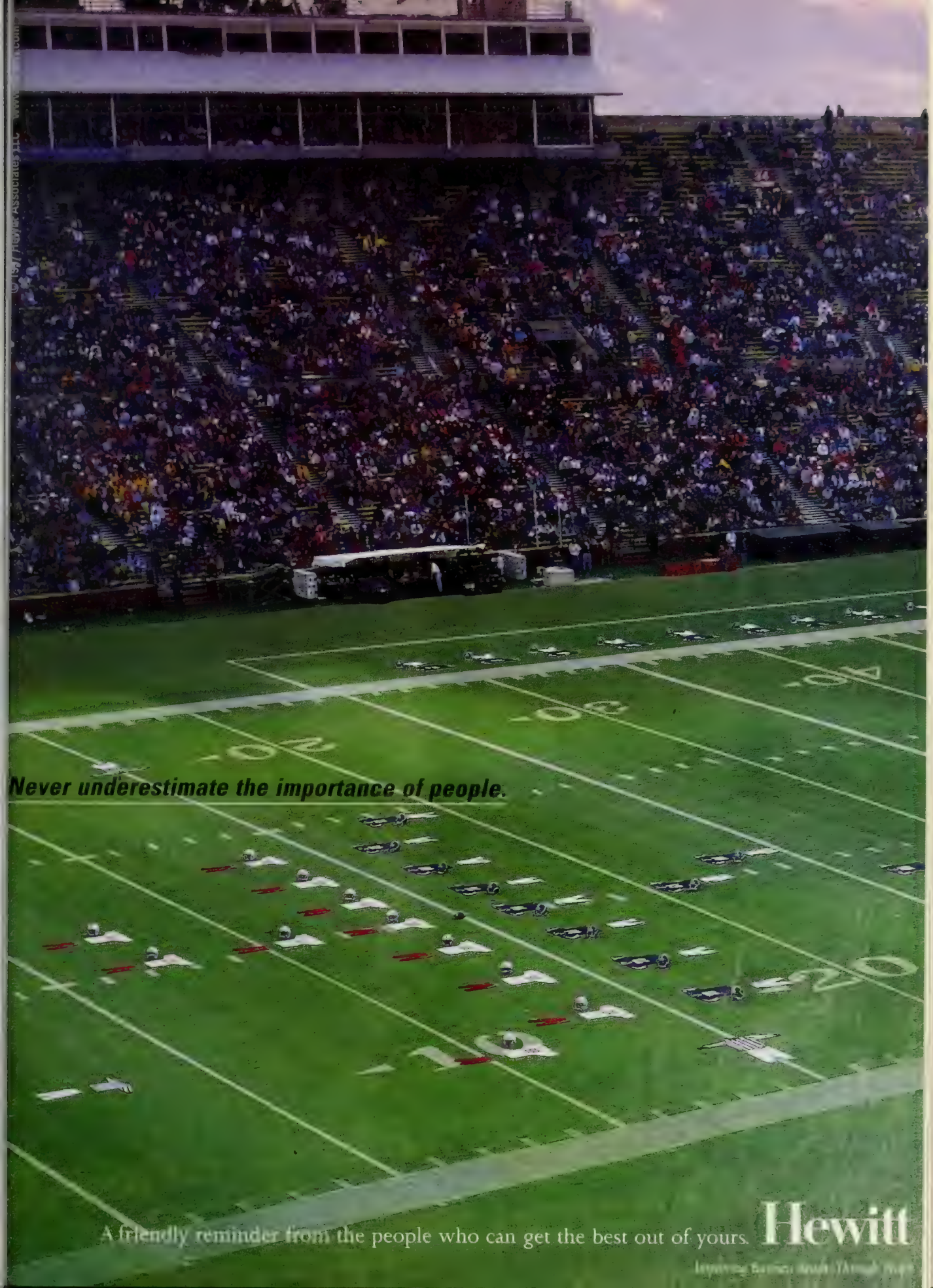
Tech stocks, especially large ones, have been very good to Edson "Ted" L. Bridges and the $62 million Bridges Investment

The Best Performers in Their Categories

Rated against their peers, these funds earn A's for five-year, risk-adjusted total returns. Not all categories have ratings, since some lack enough funds with enough history to perform a ratings review.

	AVERAGE ANNUAL TOTAL RETURN*
DIVERSIFIED EMERGING MKTS.	
PILGRIM EMERGING COUNTRIES A**	15.2%
DIVERSIFIED PACIFIC/ASIA	
MERRILL LYNCH PACIFIC B	15.8
DOMESTIC HYBRID	
COLUMBIA BALANCED	17.6
DREYFUS PREMIER BALANCED A**	20.0
EVERGREEN CAPITAL BALANCED C**	17.6
GATEWAY	11.8
INVESCO BALANCED	20.9
JANUS BALANCED	23.7
MCM BALANCED	19.0
MERGER	11.6
PAX WORLD	21.1
PREFERRED ASSET ALLOCATION**	18.9
VALUE LINE ASSET ALLOCATION	25.8
VANGUARD ASSET ALLOCATION	21.4
VANGUARD LIFESTRATEGY CONS. GROWTH	14.9
VANGUARD LIFESTRATEGY INCOME	12.0
EUROPE	
SCUDDER GREATER EUROPE GROWTH	28.4
FOREIGN	
AMERICAN CENTURY INTL. DISCOVERY INV.	30.4
DREYFUS FOUNDERS PASSPORT F**	26.2
EUROPACIFIC GROWTH	21.5
FIDELITY DIVERSIFIED INTERNATIONAL	22.6
JANUS OVERSEAS	32.0
PILGRIM INTERNATIONAL SMALL CAP A**	33.5
THOMAS WHITE INTERNATIONAL**	17.9
UMB SCOUT WORLDWIDE	20.0
WADDELL & REED INTL. GROWTH B**	30.3
INTERNATIONAL HYBRID	
OPPENHEIMER GLOBAL GROWTH & INCOME A	29.6
LARGE-CAP BLEND	
BRIDGES INVESTMENT**	26.3
CALIFORNIA INVESTMENT S&P 500**	28.4
FIDELITY FUND	27.9
FIFTH THIRD QUALITY GROWTH A**	28.3
FIRST FUNDS GROWTH & INCOME III**	25.9
HERITAGE CAPITAL APPRECIATION A**	30.9
MAGNA GROWTH & INCOME**	26.0
MCM EQUITY INVESTMENT**	26.8
MFS CAPITAL OPPORTUNITIES A	31.9
T. ROWE PRICE BLUE CHIP GROWTH	28.3%
QUANTITATIVE GROWTH & INCOME ORD.**	30.9
SUNAMERICA GROWTH & INCOME B**	28.8
UAM ANALYTIC DEFENSIVE EQ. INST.**	21.2
UAM ANALYTIC ENHANCED EQ. INST.**	28.8
VANGUARD 500 INDEX	28.5
WARBURG PINCUS CAPITAL APP. COMM.	33.1
LARGE-CAP GROWTH	
BRIDGEWAY SOCIAL RESPONSIBILITY**	31.8
GABELLI GROWTH	33.8
JANUS FUND	31.4
JANUS GROWTH & INCOME	36.4
JANUS TWENTY	45.2
MFS MASS. INVESTORS GROWTH A	35.3
NORTHERN SELECT EQUITY**	34.0
REYNOLDS BLUE CHIP GROWTH	39.1
RYDEX OTC INV.	56.6
VANGUARD GROWTH INDEX	33.7
WILSHIRE TARGET LARGE CO. GROWTH INV.	33.8
LARGE-CAP VALUE	
AMERICAN CENTURY EQUITY GROWTH INV.	28.2
AMERICAN CENTURY INCOME & GROWTH	28.0
CLIPPER	21.5
FUNDAMENTAL INVESTORS	24.3
GABELLI EQUITY-INCOME**	19.0
GABELLI WESTWOOD EQUITY RET.**	23.9
INVESTMENT CO. OF AMERICA	23.7
LEGG MASON VALUE PRIMARY SHARES	38.0
SELECTED AMERICAN	28.2
VANGUARD GROWTH & INCOME	28.8
WRIGHT MAJOR BLUE CHIP EQUITY**	24.8
MID-CAP BLEND	
GABELLI ASSET	23.8
HILLIARD LYONS GROWTH A**	21.0
WAYNE HUMMER GROWTH**	24.2
INVESCO LEISURE**	28.0
MAINSTAY MAP-EQUITY I**	24.0
SALOMON BROS. CAPITAL O**	28.4
MID-CAP GROWTH	
AIM GLOBAL CONSUMER PRODUCT & SVCS. B**	30.3
FIDELITY NEW MILLENNIUM	44.2
FIDELITY OTC	35.4
FRANKLIN CALIFORNIA GROWTH A	36.9
GABELLI ABC**	10.4
IDEX JCC CAPITAL APPRECIATION A**	37.9%
INVESCO DYNAMICS	33.1
MID-CAP VALUE	
AMERICAN CENTURY EQUITY INCOME INV.	18.3
ATLAS STRATEGIC GROWTH A**	25.9
STRONG OPPORTUNITY	23.4
WEITZ PARTNERS VALUE	29.6
WEITZ VALUE	28.9
NATURAL RESOURCES	
T. ROWE PRICE NEW ERA	12.7
PACIFIC/ASIA EX-JAPAN	
MATTHEWS ASIAN GROWTH & INCOME**	7.4
PRECIOUS METALS	
LEXINGTON SILVER**	-4.2
REAL ESTATE	
COLUMBIA REAL ESTATE EQUITY**	11.5
SMALL-CAP BLEND	
ENTERPRISE SMALL CO. VALUE A**	16.5
MERIDIAN VALUE**	26.7
VAN KAMPEN AMERICAN VALUE A	22.4
WEITZ HICKORY	36.9
SMALL-CAP GROWTH	
BARON GROWTH	29.9
BRIDGEWAY AGGRESSIVE GROWTH**	39.2
FASCIANO	18.1
FREMONT U.S. MICRO-CAP	42.1
JANUS VENTURE	36.7
SMALL-CAP VALUE	
LONGLEAF PARTNERS SMALL-CAP	18.6
ROYCE TOTAL RETURN**	16.0
THIRD AVENUE VALUE	18.5
TECHNOLOGY	
INVESCO TECHNOLOGY II**	43.8
UTILITIES	
FIDELITY SEL. UTILITIES GROWTH	28.7
MFS UTILITIES B	25.6
WORLD	
IDEX JCC GLOBAL A	30.2
JANUS WORLDWIDE	30.9
MAXUS LAUREATE INV.**	23.4
PILGRIM WORLDWIDE GROWTH C**	31.1

*1995-99, appreciation plus reinvestment of dividends and capital gains before taxes **Fund data in Business Week Online DATA: MORNINGSTAR INC.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Fund. His fund gained 36% last year, and among his winners are familiar names like Microsoft, Apple Computer, and 1999's superstar, Qualcomm, which was up twenty-seven-fold. But for 2000, the Omaha-based Bridges is looking to move downscale, buying more small-cap and mid-cap stocks, "where the growth characteristics and valuations are better right now." He also expects the market to be more volatile and vows to "take the money off the table more quickly as the stocks go up."

If only that were a problem for Michael Sandler, co-manager of the Clipper Fund. Clipper, one of the few top-rated large-cap value funds, takes concentrated positions in brand-name, large-cap companies—except if they're in technology. That's largely why Clipper lost money last year, down 2%. Its top holdings—Freddie Mac, Fannie Mae, and Philip Morris—all lost ground last year, especially the tobacco giant, whose price fell 57%. "The irony is that the companies we invest in are doing great on an operational basis," says Sandler.

The Largest Funds

Here's how BUSINESS WEEK rates the largest equity funds.

FUND	ASSETS BILLIONS	OVERALL RATING	AVERAGE ANNL. TOTAL RETURN*	INVESTMENT CATEGORY	CATEGORY RATING
VANGUARD 500 INDEX	$104.7	A	28.5%	Large-cap Blend	A
FIDELITY MAGELLAN	99.2	B	26.2	Large-cap Blend	C
WASHINGTON MUTUAL INVESTORS	55.1	B	22.3	Large-cap Value	B
INVESTMENT CO. OF AMERICA	53.7	B+	23.7	Large-cap Value	A
FIDELITY GROWTH & INCOME	47.6	B+	24.6	Large-cap Blend	B+
FIDELITY CONTRAFUND	43.5	B+	27.5	Large-cap Growth	B
JANUS	37.9	A	31.4	Large-cap Growth	A
AMERICAN CENTURY ULTRA INV.	37.6	C	29.7	Large-cap Growth	D
JANUS TWENTY	31.3	A	45.2	Large-cap Growth	A
EUROPACIFIC GROWTH	30.4	B	21.5	Foreign	A
NEW PERSPECTIVE	29.0	B+	23.9	World	B+
JANUS WORLDWIDE	28.4	A	30.9	World	A
VANGUARD WINDSOR II	26.9	C	20.1	Large-cap Value	C
FIDELITY BLUE CHIP GROWTH	25.9	B	25.8	Large-cap Growth	C
VANGUARD WELLINGTON	25.6	B+	17.4	Domestic Hybrid	C
FIDELITY PURITAN	24.7	B	15.5	Domestic Hybrid	C
FIDELITY ADV. GROWTH OPPORT. T	24.4	B	21.0	Large-cap Value	B+
GROWTH FUND OF AMERICA	23.8	B+	29.4	Large-cap Blend	B
FIDELITY EQUITY-INCOME	23.1	C	20.1	Large-cap Value	C
INCOME FUND OF AMERICA	21.4	B+	14.9	Domestic Hybrid	C

*1995-99, appreciation plus reinvestment of dividends and capital gains before taxes

DATA: MORNINGSTAR INC.

Special Report

MUTUAL FUNDS

When funds lose money, they also lose shareholders. Clipper lost 16% of its assets over the past year, but only 2% came from investment losses. The investment return for Oakmark I, once a leading light of the value crowd, was –10.5% last year, but fleeing shareholders withdrew so much money that the fund's size has been halved over the past 12 months.

TAX BITE. The combination of negative returns and a shrinking asset base can be painful for investors who stay behind. If the funds need to sell stock to meet redemptions, they may eventually start selling profitable positions. The capital gains generated by those sales are, by law, distributed to the remaining shareholders, and that will trigger a tax bill for those who own the funds in taxable accounts. As bad as the pretax return was for Oakmark I, the tax bite made it even worse, –13.5%. And that's an estimate based on just federal taxes.

You can't always be sure when there are going to be large distributions, but the Scoreboard offers some hints. One clue is flagging returns, the other is asset flight. Check out the column with the header, "% Change." Then look for the "untaxed gains" column on the right-hand page. That's the percentage of the assets that are unrealized capital gains. In general, the higher the number, the greater the gains—and potential for distributions—and taxes.

Of course, many shareholders elude those taxes if the funds are in 401(k) accounts. But every shareholder, taxable and tax-deferred, bears the fund expenses, and you can find them in the Scoreboard, too. For instance, the 2.5% expense ratio for Putnam International New Opportunities B Fund may not have mattered much last year, when the fund gained 103.4%. But expenses are deducted from the fund's assets each year, whether or not the fund makes money. That's why smart investors keep an eye on expenses as well.

Want to know how the funds measure up? Turn to page 86 and read on.

By Jeffrey M. Laderman, with Marcia Vickers, in New York

BusinessWeek ONLINE

A greatly expanded, interactive version of this Scoreboard is available at www.businessweek.com. It features nearly 3,000 equity funds, more data for each than in the magazine, and several ways of searching for them.

The Fund Categories

Technology and Japanese funds saw triple-digit returns, and many others saw strong double-digit results.

CATEGORY	AVERAGE ANNUAL TOTAL RETURN* 1999	1997-99	1995-99	1990-99
TECHNOLOGY	141.4%	54.9%	40.5%	29.1%
JAPAN	123.1	25.2	11.7	2.6
DIVERS.PACIFIC/ASIA	91.3	8.4	5.9	6.4
COMMUNICATIONS	84.2	50.7	35.0	20.1
DIVERS. EMERGING MKTS.	72.1	5.3	4.4	7.7
PACIFIC/ASIA EX-JAPAN	69.2	-0.3	3.3	0.1
SMALL-CAP GROWTH	67.0	24.6	22.9	18.9
MID-CAP GROWTH	61.7	28.1	25.5	17.6
LATIN AMERICA	59.4	7.6	5.2	NA
FOREIGN	44.8	19.1	15.8	10.3
LARGE-CAP GROWTH	39.8	31.7	29.0	18.8
WORLD	38.0	19.6	17.9	11.0
NATURAL RESOURCES	29.9	1.1	10.4	8.0
EUROPE	26.1	20.1	22.0	12.3
HEALTH	24.2	15.6	19.3	17.8
INTERNATIONAL HYBRID	23.1	12.1	11.4	5.4

CATEGORY	AVERAGE ANNUAL TOTAL RETURN* 1999	1997-99	1995-99	1990-99
SMALL-CAP BLEND	22.8%	13.7%	17.0%	12.3%
LARGE-CAP BLEND	19.8	22.6	23.6	15.7
MID-CAP BLEND	17.6	16.6	19.1	14.0
UTILITIES	14.3	18.6	18.7	12.7
DOMESTIC HYBRID	9.1	12.9	15.4	11.1
MID-CAP VALUE	7.6	11.4	16.0	12.2
LARGE-CAP VALUE	7.1	15.3	19.4	13.9
SMALL-CAP VALUE	5.8	7.8	13.5	10.8
PRECIOUS METALS	2.7	-20.0	-10.6	-5.8
FINANCIAL	-1.3	14.7	22.6	18.5
REAL ESTATE	-3.1	-1.0	8.1	6.0
U.S. DIVERSIFIED FUNDS	27.7	21.0	22.1	15.4
ALL EQUITY FUNDS	31.2	18.3	19.0	13.7
S&P 500	21.0	27.6	28.5	18.2

*Appreciation plus reinvestment of dividends and capital gains before taxes NA=Not available DATA: MORNINGSTAR INC.

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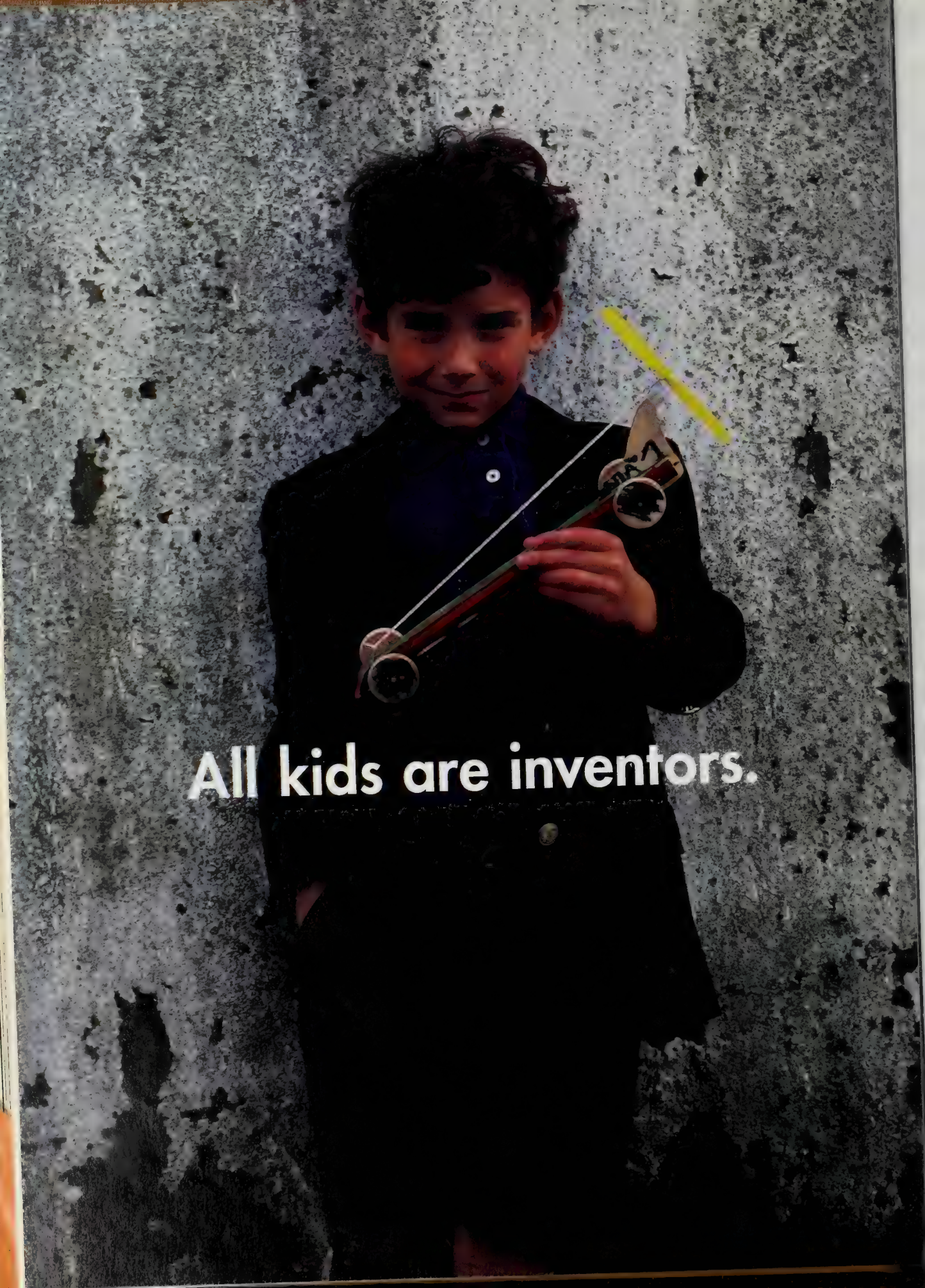
All kids are inventors.

It's because they're not afraid

to get their hands filthy.

To eat the paste.

To use a hammer as a brush.

To break something just to see how it works.

And to start with the impossible,

which is where grownups usually stop.

Just a few of the things we're keeping in mind

as we invent the new hp.

Want to come along?

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invent

Equity Funds

MUTUAL FUND SCOREBOARD

How to Use the Tables

BUSINESS WEEK RATINGS
Overall ratings are based on five-year, risk-adjusted returns. They are calculated by subtracting a fund's risk-of-loss factor (see RISK) from historical pretax total return. To get a positive rating, the fund must beat the S&P 500 on a risk-adjusted basis. Category ratings are based on risk-adjusted returns of the funds in that category. The ratings are as follows:

A	SUPERIOR
B+	VERY GOOD
B	ABOVE AVERAGE
C	AVERAGE
C–	BELOW AVERAGE
D	POOR
F	VERY POOR

MANAGEMENT CHANGES
👤 indicates the fund's manager has held the job at least 10 years; 👤 indicates a new manager since Dec. 31, 1998.

S&P 500 COMPARISON
The pretax total returns for the S&P 500 are as follows: 1999, 21.0%; three-year average (1997-1999), 27.6%; five-year average (1995-99), 28.5%; 10-year average (1990-99), 18.2%.

CATEGORY
Each U.S. diversified fund is classified by market capitalization of the stocks in the portfolio and by the nature of those stocks. If the median market cap is greater than $10.7 billion, the fund is large-cap; from $1.7 billion to $10.7 billion, mid-cap; and less than $1.7 billion, small-cap. "Value" funds are those whose stocks have price-to-earnings and price-to-book ratios lower than the average of the stocks in their market capitalizations. "Growth" funds have higher than average p-e and p-b ratios. "Blend" funds are those in which the ratios are about average. Hybrids mix stocks and bonds, and possibly other assets. World funds generally include U.S. stocks; foreign funds not. Sector and regional foreign funds are as indicated.

FUND	OVERALL RATING (COMPARES RISK-ADJUSTED PERFORMANCE OF EACH FUND AGAINST ALL FUNDS)	CATEGORY	RATING (COMPARES RISK-ADJUSTED PERFORMANCE OF FUND WITHIN CATEGORY)	SIZE ASSETS $MIL.	SIZE % CHG. 1998-99	FEES SALES CHARGE (%)	FEES EXPENSE RATIO (%)	1999 RETURNS (% PRE-TAX	1999 RETURNS (% AFTER-TAX
AARP BALANCED STOCK & BOND	B	Domestic Hybrid	C–	672.1	–13	No load	0.84	2.9	1.5
AARP CAPITAL GROWTH 👤	B+	Large-cap Blend	B	1997.8	29	No load	0.87	35.4	33.5
AARP GROWTH & INCOME 👤	C	Large-cap Value	C	6171.1	–11	No load	0.67	7.4	5.9
AARP U.S. STOCK INDEX		Large-cap Blend		734.5	267	No load	0.50	22.0	21.5
ACCESSOR GROWTH ADV. (a)	A	Large-cap Growth	B+	338.6	115	No load	0.92	25.9	25.0
ACCESSOR SMALL TO MID CAP ADV. (b)	B	Mid-cap Blend	B+	446.2	73	No load	1.22	28.0	25.0
ACORN 👤	C	Small Blend	B+	3610.2	1	No load	0.84	33.4	28.6
ACORN INTERNATIONAL	B	Foreign	B+	2412.7	40	No load	1.12	79.2	77.1
ACORN USA		Small Blend		371.5	32	No load	1.20	23.0	21.0
AIM ADV. FLEX C 👤	B	Large-cap Value	B	611.7	–9	1.00**	2.20†	–1.6	–4.0
AIM AGGRESSIVE GROWTH A	D	Small Growth	C–	3027.7	–1	5.50	1.06†	45.0	42.0
AIM BALANCED A	B+	Domestic Hybrid	B	1787.1	35	4.75	0.95†	19.0	18.0
AIM BLUE CHIP A	B+	Large-cap Blend	B	2400.9	76	5.50	1.22†	25.7	25.7
AIM CAPITAL DEVELOPMENT A		Small Growth		621.7	–25	5.50	1.28†	27.8	27.8
AIM CHARTER A	B	Large-cap Blend	C	5157.2	21	5.50	1.08†	33.9	31.4
AIM CONSTELLATION A 👤	C–	Mid-cap Growth	C	15522.0	9	5.50	1.10†	44.4	42.1
AIM EUROLAND GROWTH A (c)	C–	Europe	D	446.2	7	5.50	1.75†	35.1	32.6
AIM GLOBAL AGGRESSIVE GROWTH B	C–	World	C–	1070.1	6	5.00**	2.32†	69.7	67.8
AIM GLOBAL GROWTH & INCOME B	B	International Hybrid	C	355.2	–30	5.00**	2.29†	–0.4	–2.6
AIM GLOBAL GROWTH B	B+	World	B+	473.2	50	5.00**	2.26†	51.4	49.8
AIM GLOBAL HEALTH CARE A	D	Health	C	357.2	–10	4.75	1.83†	5.5	3.5
AIM GLOBAL TELECOMM. AND TECH. A (d) 👤	D	Technology	D	1217.1	55	4.75	1.87†	108.1	103.5
AIM INTERNATIONAL EQUITY A	C	Foreign	B+	2305.7	28	5.50	1.45†	55.1	54.0
AIM SELECT GROWTH B	C	Large-cap Growth	D	523.4	66	5.00**	1.93†	40.3	39.0
AIM SMALL CAP GROWTH A		Small Growth		352.9	NM	5.50‡	1.75†	90.6	89.6
AIM SMALL CAP OPPORTUNITIES A		Small-cap Growth		381.0	139	5.50‡	1.59†	84.2	81.6
AIM SUMMIT	C	Large-cap Growth	C–	2873.5	28	8.50	0.67	50.8	46.3
AIM VALUE B	B+	Large-cap Blend	C	14333.4	48	5.00**	1.80†	28.9	27.0
AIM WEINGARTEN A 👤	B	Large-cap Growth	C	8657.3	19	5.50	1.04†	34.9	31.9
ALGER CAPITAL APPRECIATION B	B	Large-cap Growth	C	685.1	136	5.00**	2.19†	72.9	67.5
ALGER GROWTH B 👤	C	Large-cap Growth	C–	792.8	63	5.00**	2.00†	32.6	27.0
ALGER MIDCAP GROWTH B	C–	Mid-cap Growth	C	271.7	30	5.00**	2.10†	34.3	27.8
ALGER SMALL CAPITALIZATION B 👤	D	Mid-cap Growth	D	455.2	–12	5.00**	2.12†	32.1	26.7
ALLEGHANY/CHICAGO TRUST BALANCED (e)		Domestic Hybrid		303.3	26	No load	1.08†	12.9	11.5
ALLEGHANY/CHICAGO TR. GRTH. & INC. (f) 👤	A	Large-cap Growth	B+	540.7	26	No load	1.08†	23.3	21.6
ALLEGHANY/MONTAG & CALDWELL GR. N (g)	B+	Large-cap Growth	B	1735.9	50	No load	1.12†	22.5	21.4
ALLIANCE A	C–	Mid-cap Blend	C–	1141.1	13	4.25	1.03†	33.9	31.0
ALLIANCE GROWTH & INCOME B	B	Large-cap Value	B	1899.0	111	4.00**	1.72†	10.2	8.9
ALLIANCE GROWTH B 👤	C	Large-cap Blend	D	5545.8	13	4.00**	1.94†	24.7	20.3
ALLIANCE PREMIER GROWTH B	B+	Large-cap Growth	B	8162.6	137	4.00**	2.27†	28.1	26.2
ALLIANCE QUASAR B	D	Small-cap Growth	C	589.5	–21	4.00**	2.45†	12.0	12.0
ALLIANCE TECHNOLOGY B	C–	Technology	C–	3917.6	112	4.00**	2.38†	70.6	68.9
ALLIANCE WORLDWIDE PRIVATIZATION A	C	Foreign	C	374.3	3	4.25	1.92†	56.3	53.2
AMCAP 👤	B	Large-cap Growth	C	6721.0	15	5.75	0.67†	21.8	18.5
AMERICAN BALANCED 👤	B+	Domestic Hybrid	C	6038.9	3	5.75	0.63†	3.5	0.6

*Includes redemption fee. **Includes deferred sales charge. †12(b)-1 plan in effect. ‡Not currently accepting new accounts. §Less than 0.5% of assets. NA=Not available. NM=Not mean
(a) Formerly Accessor Growth Portfolio. (b) Formerly Accessor Small to Mid Cap Portfolio. (c) Formerly AIM Europe Growth A. (d) Formerly AIM Global Telecommunications A. (e) Formerly

ı CHARGE
ɔst of buying a fund. Many take this "load" out of the investment, and for ratings ses, returns are reduced by charges. Loads may be on withdrawals.

ıSE RATIO
ıses for 1999 as a percent- average net assets, a mea- ıf how much shareholders ır management. Footnotes ıte if the ratio includes a -1 plan, which spends ıolder money on marketing. verage is 1.45%.

AX TOTAL RETURN
d's net gain to investors, in- ıg reinvestment of dividends apital gains at month-end ;.

RTAX TOTAL RETURN
ı return adjusted for federal Assumes ordinary income and capital gains taxed at highest rate applicable in each year; uses 31% tax rate on income since 1994. Capital gains are assumed to be long-term.

YIELD
Income distributions as a percent of net asset value, adjusted for capital-gains distributions.

HISTORY
A fund's returns relative to all other funds for four periods, which from left to right are: Jan., 1990-June, 1992; July, 1992-Dec., 1994; Jan., 1995-June, 1997; July, 1997-Dec., 1999. The numbers designate which quartile the fund was in during the period: 1 for the top quartile; 2 for the second quartile; 3 for the third quartile; 4 for the bottom quartile. No number indicates no data for that period.

TURNOVER
Trading activity, the lesser of purchases or sales divided by average monthly assets.

% CASH
Portion of fund assets not invested in stocks or bonds. A negative number means the fund has borrowed to buy securities.

% FOREIGN
Portion of funds assets invested in non-U.S. securities.

PRICE-EARNINGS RATIO
The average, weighted price-earnings ratio of stocks in a fund's portfolio, based on last 12 months' earnings.

UNTAXED GAINS
Percentage of assets in portfolio that are unrealized and undistributed capital gains. A negative figure indicates losses that may offset future gains.

LARGEST HOLDING
Comes from the latest available fund reports.

RISK
Potential for losing money in a fund, or risk-of-loss factor. For each fund, the three-month Treasury bill return is subtracted from the monthly total return for each of the 60 months in the ratings period. When a fund has not performed as well as Treasury bills, the monthly result is negative. The sum of these negative numbers is divided by the number of months. The result is a negative number, and the greater its magnitude, the higher the risk of loss. This number is the basis for BW ratings, category ratings, and the RISK column.

BEST & WORST QUARTERS
The fund's highest and lowest quarterly returns of the past five years.

GE ANNUAL TOTAL RETURNS (%)					HISTORY	PORTFOLIO DATA						RISK					TELEPHONE
EARS AFTERTAX	5 YEARS PRETAX	5 YEARS AFTERTAX	10 YEARS PRETAX	10 YEARS AFTERTAX	RESULTS VS. ALL FUNDS	TURNOVER	CASH %	FOREIGN %	P-E RATIO	UNTAXED GAINS (%)	LARGEST HOLDING COMPANY (% ASSETS)	LEVEL	BEST QTR	BEST %RET	WORST QTR	WORST %RET	
8.0	13.3	11.4	NA	NA	3 4	Average	7	13	26	12	Corning (3)	Very low	II 97	10.4	III 99	–7.4	800-322-2282
29.0	28.9	26.6	16.5	14.5	4 4 1 1	Average	3	4	42	46	Microsoft (3)	Average	IV 98	25.8	III 98	–15.4	800-322-2282
11.8	19.1	16.7	14.5	12.4	2 2 1 3	Low	0	12	26	26	Corning (5)	Average	II 97	15.5	III 98	–13.8	800-322-2282
NA	NA	NA	NA	NA	1	Very low	5	2	35	17	Microsoft (4)			NA		NA	800-322-2282
32.1	31.7	28.6	NA	NA	1 1	High	0	NA	43	25	Microsoft (8)	Average	IV 98	27.7	III 98	–7.1	800-882-9612
22.8	27.0	23.4	NA	NA	1 1	High	2	NA	31	23	Berkshire Hathaway Cl. A (3)	Average	IV 98	23.6	III 98	–18.6	800-882-9612
18.1	21.2	18.2	17.1	14.7	2 1 3 2	Low	7	15	32	62	Softbank (3)	Average	IV 99	21.9	III 98	–19.5	800-922-6769
26.2	22.2	21.3	NA	NA	4 1	Low	13	92	38	63	WM-Data Cl. B (3)	Low	IV 99	41.6	III 98	–16.1	800-922-6769
18.3	NA	NA	NA	NA	3	Low	7	NA	28	18	Midamerican Energy Hldgs. (8)			NA		NA	800-922-6769
8.9	14.6	12.7	11.7	9.7	2 3 3 4	Very low	2	8	23	27	IBM (2)	Low	II 97	11.5	III 99	–9.2	800-554-1156
18.3	22.6	21.2	23.0	21.3	1 1 2 2	Average	2	3	38	58	Alpha Industries (2)	High	IV 99	31.4	III 98	–22.8	800-347-4246
17.3	21.8	20.5	16.0	14.9	2 2 2 2	Low	5	5	39	21	S&P 500 Index (Fut.) (4)	Low	IV 99	16.2	III 98	–8.9	800-347-4246
29.1	28.7	26.9	18.2	16.9	2 3 1 1	Low	8	4	41	27	Microsoft (4)	Low	IV 98	24.5	III 98	–11.0	800-347-4246
18.2	NA	NA	NA	NA	3	Average	5	4	33	29	Microchip Tech. (1)			NA		NA	800-347-4246
25.9	28.0	25.2	18.4	16.3	1 4 1 1	High	1	1	43	44	Tyco International (6)	Average	IV 98	26.1	III 98	–11.9	800-347-4246
23.2	25.0	23.6	21.2	20.3	1 1 2 1	Average	7	2	43	55	Lucent Technologies (2)	High	IV 99	36.6	III 98	–15.6	800-347-4246
19.1	18.2	17.1	8.2	7.6	4 4 4 2	Average	3	100	42	47	EM.TV & Merchandising (4)	Average	IV 99	41.5	III 98	–21.0	800-347-4246
21.5	24.0	23.7	NA	NA	2 2	Average	5	67	40	56	JDS Uniphase (5)	High	IV 99	49.1	III 98	–20.9	800-347-4246
9.4	13.2	11.3	NA	NA	4 3	Average	1	45	24	30	Royal Dutch Petroleum (3)	Very low	IV 98	12.0	III 98	–7.9	800-347-4246
26.7	26.3	25.6	NA	NA	2 1	Average	9	61	42	40	Intel (1)	Low	IV 99	37.8	III 98	–12.5	800-347-4246
7.4	18.0	14.6	13.8	11.8	1 4 2 3	Very high	5	19	35	31	Warner-Lambert (9)	High	IV 98	21.6	III 98	–11.3	800-347-4246
38.7	26.0	24.0	NA	NA	1 4 1	Average	5	23	48	42	JDS Uniphase (5)	High	IV 99	62.2	III 98	–24.0	800-347-4246
22.5	20.8	20.1	NA	NA	1 3 2	Average	5	100	39	45	Mannesmann (2)	Average	IV 99	43.1	III 98	–14.6	800-347-4246
26.3	26.8	25.0	NA	NA	2 1	Average	5	3	40	47	MCI WorldCom (3)	High	IV 99	30.2	III 98	–14.5	800-347-4246
38.8	NA	NA	NA	NA	1	Very high	11	2	34	23	Russell 2000 Index (Fut.) (3)			NA		NA	800-347-4246
NA	NA	NA	NA	NA			2	2	38	39	Bank United Cl. A (2)			NA		NA	800-347-4246
33.2	32.5	29.4	20.6	18.0	1 3 1 1	Average	4	3	41	54	Microsoft (3)	High	IV 99	37.1	III 98	–12.3	800-347-4246
25.5	26.0	23.8	NA	NA	3 1	High	10	5	38	39	MCI WorldCom (4)	Average	IV 98	27.1	III 98	–12.3	800-347-4246
28.2	29.1	25.3	18.7	16.3	1 4 2 1	High	6	4	44	51	Microsoft (4)	Average	IV 98	28.0	III 98	–12.2	800-347-4246
38.8	42.1	40.0	NA	NA	1 1	Very high	13	1	51	44	America Online (5)	High	IV 99	40.3	III 98	–12.6	800-992-3863
28.7	29.6	26.3	21.5	18.9	1 1 2 1	High	19	NA	44	37	Microsoft (5)	Average	IV 98	25.0	III 98	–8.3	800-992-3863
21.8	27.2	23.6	NA	NA	2 1	Very high	9	6	43	34	CNET (4)	High	IV 98	27.3	III 98	–14.5	800-992-3863
13.7	19.7	16.3	16.3	14.0	1 1 3 2	High	11	4	42	47	Linens 'N Things (3)	High	IV 99	26.3	III 98	–20.2	800-992-3863
17.7	NA	NA	NA	NA	2	Low	6	NA	43	29	EMC (3)			NA		NA	800-992-8151
26.7	29.2	27.8	NA	NA	1 1	Low	6	NA	42	46	Sun Microsystems (6)	Low	IV 98	23.7	III 98	–9.0	800-992-8151
27.9	31.4	30.9	NA	NA	1 1	Low	3	NA	42	33	Procter & Gamble (5)	Average	IV 98	26.9	III 98	–14.3	800-992-8151
16.7	22.9	18.1	16.5	11.8	2 2 2 2	High	0	11	26	30	Royal Caribbean Cruises (5)	High	IV 99	26.4	III 98	–24.3	800-227-4618
16.4	23.2	19.8	NA	NA	4 1 1 1	Average	3	3	27	15	Household Intl. (4)	Average	IV 98	22.9	III 98	–14.1	800-227-4618
23.1	25.8	23.6	20.7	18.1	1 1 2 1	Average	-1	14	37	42	AT&T Liberty Media Cl. A (5)	Average	IV 98	28.6	III 98	–16.4	800-227-4618
34.2	35.1	32.9	NA	NA	1 1	Average	7	8	41	24	Dell Computer (5)	Average	IV 98	30.8	III 98	–12.3	800-227-4618
6.4	19.0	15.7	NA	NA	3 1 4	Average	5	9	27	1	Legg Mason (6)	High	I 96	18.7	III 98	–28.6	800-227-4618
40.8	37.6	36.3	NA	NA	2 1	Average	8	5	52	51	Cisco Systems (6)	High	IV 99	44.3	IV 97	–16.6	800-227-4618
20.6	20.0	16.8	NA	NA	3 2	Average	0	95	29	33	Japan Tobacco (3)	Average	IV 99	34.2	III 98	–17.4	800-227-4618
23.7	24.9	21.3	16.8	13.7	2 3 3 1	Low	17	3	38	22	Medtronic (3)	Low	IV 98	22.0	III 98	–8.6	800-421-4120
8.7	14.9	11.9	11.6	9.0	2 3 3 3	Average	14	7	24	12	US West (1)	Very low	II 97	10.0	III 99	–5.2	800-421-4120

rust Balanced. (f) Formerly Chicago Trust Growth & Income. (g) Formerly Montag & Caldwell Growth N

DATA: MORNINGSTAR, INC., CHICAGO, IL

MUTUAL FUND SCOREBOARD

FUND	OVERALL RATING (COMPARES RISK-ADJUSTED PERFORMANCE OF EACH FUND AGAINST ALL FUNDS)	CATEGORY	RATING (COMPARES RISK-ADJUSTED PERFORMANCE OF FUND WITHIN CATEGORY)	SIZE ASSETS $MIL.	% CHG. 1998-99	FEES SALES CHARGE (%)	EXPENSE RATIO (%)	1999 RETURNS (% PRE-TAX	AFTER-TAX
AMERICAN CENTURY BALANCED INV.	B	Domestic Hybrid	C–	950.2	–5	No load	1.00	10.1	5.6
AMERICAN CENTURY EQUITY GROWTH INV.	A	Large-cap Value	A	2317.0	15	No load	0.69	18.5	17.7
AMERICAN CENTURY EQUITY INCOME INV.	B+	Mid-cap Value	A	327.8	1	No load	1.00	–0.2	–3.7
AMERICAN CENTURY GIFTRUST INV. (h)	F	Mid-cap Growth	F	1451.0	58	No load	1.00	87.3	87.3
AMERICAN CENTURY GROWTH INV. (i)	C	Large-cap Growth	D	8835.1	25	No load	1.00	34.7	31.2
AMERICAN CENTURY HERITAGE INV. (j)	C–	Mid-cap Growth	C	1116.0	4	No load	1.00	51.3	47.5
AMERICAN CENTURY INCOME & GROWTH	A	Large-cap Value	A	6346.8	48	No load	0.69	18.0	17.5
AMERICAN CENTURY INTL. DISC. INV (k)	B+	Foreign	A	1408.1	76	2.00*	1.64	88.5	86.4
AMERICAN CENTURY INTL. GROWTH (l)	C	Foreign	B+	3713.1	41	No load	1.33	64.4	62.5
AMERICAN CENTURY SELECT INV. (m)	B	Large-cap Growth	C	7674.4	18	No load	1.00	22.2	19.2
AMERICAN CENT. STRAT. ALLOC.: MOD. INV.		Domestic Hybrid		404.6	49	No load	1.10	22.3	20.8
AMERICAN CENTURY ULTRA INV. (n)	C	Large-cap Growth	D	37604.5	25	No load	1.00	41.5	40.6
AMERICAN CENTURY UTILITIES INV.	B+	Utilities	C	319.3	4	No load	0.69	11.5	9.5
AMERICAN CENTURY VALUE INV.	C	Mid-cap Value	C	1605.4	–23	No load	1.00	–0.8	–3.4
AMERICAN CENTURY VISTA INV. (o)	D	Mid-cap Growth	F	1349.9	41	No load	1.00	119.1	116.1
AMERICAN MUTUAL	B	Large-cap Value	B+	10156.4	–4	5.75	0.56†	–0.1	–4.3
AMERINDO TECHNOLOGY D		Technology		407.1	534	3.00*	2.25†	248.9	220.5
AMSOUTH BALANCED PREMIER		Domestic Hybrid		282.3	–14	No load	1.10	1.5	–2.1
AMSOUTH EQUITY PREMIER		Large-cap Value		869.8	–9	No load	1.09	4.0	0.6
ARIEL APPRECIATION	C	Mid-cap Blend	B	334.6	18	No load	1.26†	–3.8	–5.9
ARMADA EQUITY INDEX I (p)		Large-cap Blend		507.8	225	No load	0.20†	20.6	20.1
ARTISAN INTERNATIONAL		Foreign		1718.9	241	No load	1.38	81.3	80.1
ASAF JANUS CAPITAL GROWTH B		Large-cap Growth		796.3	608	6.00**	2.20†	49.4	49.4
ASAF MARSICO CAPITAL GROWTH B		Large-cap Growth		333.0	649	6.00**	2.25†	52.3	52.3
ATLAS GROWTH & INCOME A	A	Large-cap Growth	B+	377.6	52	No load	1.06†	31.7	29.1
AXP BLUE CHIP ADVANTAGE A (q)	B	Large-cap Blend	C	2398.4	36	5.00	0.73†	20.4	17.6
AXP DISCOVERY A (r)	D	Mid-cap Growth	F	671.8	–25	5.00	1.05†	–0.1	–0.6
AXP DIVERSIFIED EQUITY-INCOME A (s)	C	Large-cap Value	C	2078.6	1	5.00	0.86†	9.2	6.8
AXP EMERGING MARKETS A (t)		Diversified Emerging Mkts.		277.7	45	5.00	1.93†	78.9	78.9
AXP EQUITY SELECT A (u)	B	Mid-cap Growth	B+	1317.8	14	5.00	0.82†	33.3	31.5
AXP EQUITY VALUE B (v)	C	Large-cap Value	C	1526.5	–10	5.00**	1.62†	9.8	7.5
AXP GLOBAL GROWTH A (w)	C–	World	D	1374.6	27	5.00	1.22†	37.1	34.2
AXP GROWTH A (x)	C	Large-cap Growth	D	5185.4	32	5.00	0.89†	39.5	39.1
AXP INTERNATIONAL A (y)	C–	Foreign	C–	980.4	15	5.00	1.26†	43.8	38.8
AXP MANAGED ALLOCATION A (z)	C	Domestic Hybrid	F	2009.1	–15	5.00	0.80†	12.0	9.3
AXP MUTUAL A (aa)	B	Domestic Hybrid	C	3201.9	–2	5.00	0.80†	7.4	5.0
AXP NEW DIMENSIONS A (bb)	B+	Large-cap Growth	B	15220.4	28	5.00	0.86†	31.5	30.0
AXP PROGRESSIVE A (cc)	C–	Mid-cap Blend	D	382.5	–25	5.00	1.02†	–2.2	–2.5
AXP RESEARCH OPPORTUNITIES A (dd)		Large-cap Blend		536.5	40	5.00	NA	22.0	18.8
AXP SMALL COMPANY INDEX A (ee)		Small-cap Blend		602.9	1	5.00	0.94†	11.3	9.7
AXP STOCK A (ff)	C	Large-cap Blend	C–	3347.0	3	5.00	0.77†	16.6	13.9
AXP STRATEGY AGGRESSIVE B (gg)	C	Mid-cap Growth	B	997.0	21	5.00**	1.78†	71.9	64.1
AXP UTILITIES INCOME A (hh)	B+	Utilities	C	1443.1	22	5.00	0.86†	8.7	6.3
BABSON GROWTH	B	Large-cap Growth	C	500.4	–2	No load	0.79	12.6	9.8
BABSON VALUE	C–	Large-cap Value	D	918.5	–37	No load	0.96	1.1	–0.0
BARON ASSET	C–	Mid-cap Growth	C–	5952.1	5	No load	1.31†	16.3	16.3
BARON GROWTH (ii)	C	Small-cap Growth	A	525.1	53	No load	1.37†	44.7	42.9
BARON SMALL CAP		Small-cap Growth		900.6	92	No load	1.34†	70.8	70.8
BEAR STEARNS S&P STARS A		Large-cap Growth		373.2	116	5.50	1.50†	37.5	37.3
BERGER GROWTH & INCOME	B+	Large-cap Growth	B+	468.0	35	No load	1.35†	61.3	56.3
BERGER NEW GENERATION INV.		Small-cap Growth		327.6	122	No load	1.54†	144.2	135.3
BERGER 100	C–	Large-cap Growth	F	1600.0	2	No load	1.36†	52.3	45.1
BERGER SMALL CAP VALUE INV.		Small-cap Value		372.5	121	No load	1.37†	14.3	13.7
BERGER SMALL COMPANY GROWTH INV.	D	Small-cap Growth	C	922.6	38	No load	1.60†	104.4	95.8
BERNSTEIN EMERGING MKTS. VALUE		Diversified Emerging Mkts.		719.9	54	2.00*	1.77	73.0	72.7
BERNSTEIN TAX-MGD. INTL. VALUE (jj)	C	Foreign	B	3886.5	–29	No load	1.26	22.7	22.4
BLACKROCK INDEX EQUITY INV. C		Large-cap Blend		450.3	20	1.00**	1.38†	19.1	18.9
BNY HAMILTON LRG. CAP. GROWTH INST.		Large-cap Blend		538.2	29	No load	0.82†	37.3	35.1
BNY HAMILTON SM. CAP. GROWTH INST.		Small-cap Growth		320.4	69	No load	0.97†	97.2	93.1
BOSTON 1784 GROWTH & INCOME	C	Large-cap Growth	C–	559.0	–3	No load	0.89†	18.1	15.9
BOSTON 1784 INTERNATIONAL EQUITY	C	Foreign	C	484.8	9	No load	1.20†	56.3	49.9
BRANDYWINE	C–	Mid-cap Growth	C	5055.1	3	No load	1.05	53.5	51.0
BRANDYWINE BLUE	C–	Mid-cap Growth	C	398.7	12	No load	1.08	49.4	47.4
BRAZOS/JMIC SMALL CAP GROWTH		Small-cap Growth		582.3	52	No load	1.21	37.0	36.8
BRINSON GLOBAL (EX-US) EQUITY I	C	Foreign	C	522.6	7	No load	1.00	19.2	18.5
BRINSON U.S. EQUITY I	C	Large-cap Value	C	445.6	–36	No load	0.80	–4.1	–6.1
BT INVESTMENT EQUITY 500 INDEX	A	Large-cap Blend	B+	1037.8	19	No load	0.25	20.6	19.8
BT INVESTMENT INTL. EQUITY	C	Foreign	B+	2024.6	23	No load	1.50	32.2	32.2
BT INVESTMENT SMALL CAP	D	Small-cap Growth	C–	265.8	20	No load	1.25	44.8	40.4
CALVERT SOCIAL INV. BALANCED A	B	Domestic Hybrid	C–	749.5	1	4.75	1.11†	6.8	4.9

*Includes redemption fee. **Includes deferred sales charge. †12(b)-1 plan in effect. ‡Not currently accepting new accounts. §Less than 0.5% of assets. NA=Not available. NM=Not mean
(h) Formerly American Century 20th Cent Giftrust. (i) Formerly American Century 20th Cent Gr Inv. (j) Formerly American Century 20th Cent Heritage Inv. (k) Formerly American Centur
Cent Intl DiscInv. (l) Formerly American Cent 20th Cent Intl Gr Inv. (m) Formerly American Cent 20th Cent Select Inv. (n) Formerly American Century 20th Cent Ultra Inv. (o) Formerly
ican Cent 20th Cent Vista Inv. (p) Formerly Armada Equity Index Instl. (q) Formerly IDS Blue Chip Advantage A. (r) Formerly IDS Discovery A. (s) Formerly IDS Diversified Equity-Inco

GE ANNUAL TOTAL RETURNS (%)					HISTORY	PORTFOLIO DATA						RISK					TELEPHONE
ARS FTERTAX	5 YEARS PRETAX	5 YEARS AFTERTAX	10 YEARS PRETAX	10 YEARS AFTERTAX	RESULTS VS ALL FUNDS	TURNOVER	CASH %	FOREIGN %	P-E RATIO	UNTAXED GAINS (%)	LARGEST HOLDING COMPANY (% ASSETS)	LEVEL	BEST QTR	BEST %RET	WORST QTR	WORST %RET	
10.9	15.4	12.0	11.9	9.7	1 4 4 3	High	1	1	33	23	Microsoft (3)	Low	II 97	12.3	III 98	-6.9	800-345-2021
24.2	28.2	25.2	NA	NA	2 1 1	Average	1	1	31	25	Microsoft (4)	Low	IV 98	23.1	III 98	-13.9	800-345-2021
7.9	18.3	13.4	NA	NA	2 3	Very high	2	NA	16	1	First Virginia Banks (5)	Low	IV 98	14.2	III 98	-6.2	800-345-2021
16.9	18.7	17.6	20.3	18.7	5 1 4 2	High	4	2	42	38	Gemstar Intl. Group (5)	Very high	IV 99	56.3	III 98	-30.3	800-345-2021
29.1	27.0	23.1	18.0	15.0	1 4 3 1	High	1	8	47	43	General Electric (5)	High	IV 99	23.6	IV 95	-8.4	800-345-2021
18.5	21.4	18.5	15.0	12.9	3 2 3 2	High	2	10	39	46	Gemstar Intl. Group (7)	High	IV 99	40.4	III 98	-21.2	800-345-2021
24.5	28.0	25.6	NA	NA	2 1 1	Average	1	1	31	23	Microsoft (4)	Low	IV 98	22.2	III 98	-11.3	800-345-2021
36.5	30.4	29.3	NA	NA	2 1	Very high	6	74	38	56	Marseille-Kliniken (3)	Average	IV 99	50.9	III 98	-19.9	800-345-2021
30.4	24.6	22.4	NA	NA	3 3 1	Very high	6	96	39	44	Mannesmann (3)	Average	IV 99	48.2	III 98	-17.9	800-345-2021
25.3	26.2	21.9	15.5	12.2	1 4 3 1	High	1	3	40	36	Microsoft (5)	Average	IV 98	22.4	III 98	-7.4	800-345-2021
15.1	NA	NA	NA	NA	2	High	3	23	32	17	Microsoft (1)			NA		NA	800-345-2021
29.3	29.7	26.8	24.4	22.9	1 1 2 1	High	1	2	44	47	Microsoft (6)	High	IV 99	32.1	III 98	-11.8	800-345-2021
21.4	22.4	19.9	NA	NA	3 1	Average	1	12	27	28	Bell Atlantic (5)	Low	IV 97	18.1	III 96	-4.8	800-345-2021
5.0	16.7	12.4	NA	NA	1 4	High	2	NA	21	-3	First Virginia Banks (4)	Average	II 99	18.5	III 99	-11.0	800-345-2021
18.7	22.0	20.2	15.6	14.1	3 2 4 1	Very high	2	4	38	58	JDS Uniphase (6)	Very high	IV 99	72.2	III 98	-27.5	800-345-2021
9.7	17.2	13.8	12.6	9.6	5 5 2 3	Low	18	2	22	33	Sprint (FON Group) (2)	Low	IV 98	12.4	III 99	-7.6	800-421-4120
69.2	NA	NA	NA	NA	1	Average	18	NA	60	36	Yahoo (26)			NA		NA	888-832-4386
NA	NA	NA	NA	NA		Low	4	NA	23	24	Cabletron Systems (2)			NA		NA	800-451-8382
NA	NA	NA	NA	NA		Low	6	NA	25	41	Kerr-McGee (3)			NA		NA	800-451-8382
14.4	19.5	17.1	13.6	12.1	2 4 2 3	Low	6	2	23	30	Hasbro (4)	Average	IV 98	23.4	III 98	-12.9	800-292-7435
NA	NA	NA	NA	NA			5	3	35	9	Microsoft (4)			NA		NA	800-342-5734
33.5	NA	NA	NA	NA	1	Average	2	92	39	31	AT&T Canada Cl. B Dep. Rec. (4)			NA		NA	800-344-1770
NA	NA	NA	NA	NA		Average	52	11	54	22	America Online (8)			NA		NA	800-752-6342
NA	NA	NA	NA	NA			NA	9	47	19	Qualcomm (5)			NA		NA	800-752-6342
25.1	27.4	24.2	NA	NA	3 2 1	High	8	4	46	33	JDS Uniphase (12)	Low	IV 99	21.0	III 98	-9.5	800-933-2852
20.5	25.4	22.8	NA	NA	3 1 2	High	2	0	37	26	General Electric (4)	Average	IV 98	20.2	III 98	-10.6	800-328-8300
4.7	12.4	8.7	11.6	9.2	1 2 3 4	Very high	4	6	28	8	Metris (5)	High	IV 98	24.7	III 98	-21.8	800-328-8300
10.4	16.6	13.7	NA	NA	2 3 5	Average	3	3	28	16	Citigroup (3)	Low	IV 98	15.4	III 98	-10.7	800-328-8300
9.5	NA	NA	NA	NA	4	High	10	93	27	-10	Korea Telecom (4)			NA		NA	800-328-8300
24.3	27.0	23.4	17.3	14.3	3 5 2 1	Average	8	2	40	43	Tyco International (8)	Average	IV 99	31.4	III 98	-15.8	800-328-8300
10.1	17.6	14.3	13.2	10.3	2 5 2 3	High	5	2	27	20	American Intl. Group (3)	Low	IV 98	16.2	III 98	-12.4	800-328-8300
21.1	17.7	16.0	NA	NA	3 4 1	Average	2	64	37	35	Total Fina Cl. B (4)	High	IV 99	32.2	III 98	-16.9	800-328-8300
26.6	29.4	28.3	20.9	17.4	1 1 1 1	Very low	2	3	46	52	Cisco Systems (6)	High	IV 98	27.1	III 98	-17.5	800-328-8300
17.2	15.4	13.6	10.1	8.5	4 2 4 2	Average	9	94	37	44	Mannesmann (4)	High	IV 99	31.5	III 98	-19.9	800-328-8300
8.0	13.2	9.6	12.5	9.2	1 2 4 3	High	3	0	34	11	Bristol-Myers Squibb (2)	Low	IV 98	12.0	III 98	-11.1	800-328-8300
8.3	14.6	11.5	11.3	8.1	2 3 3 3	Average	-4	3	27	11	Citigroup (2)	Very low	IV 98	10.2	III 98	-6.6	800-328-8300
26.4	28.8	27.1	20.7	18.8	1 2 1 1	Low	6	1	43	49	Cisco Systems (5)	Average	IV 98	24.3	III 98	-11.5	800-328-8300
4.3	12.0	9.7	9.5	7.5	4 2 3 4	High	5	3	22	-3	TCF Financial (3)	Average	IV 98	16.6	III 98	-19.0	800-328-8300
21.1	NA	NA	NA	NA	2		1	NA	41	NA	General Electric (5)			NA		NA	800-328-8300
9.2	NA	NA	NA	NA	4	Low	0	0	26	3	IDEC Pharmaceuticals (1)			NA		NA	800-328-8300
17.2	21.2	18.4	15.2	11.9	2 2 2 2	Average	7	3	41	37	Microsoft (4)	Average	IV 98	19.3	III 98	-11.5	800-328-8300
28.6	30.1	26.8	18.7	16.3	3 4 3 1	Average	9	3	47	73	Cisco Systems (4)	High	IV 99	54.7	III 98	-19.1	800-328-8300
16.6	19.5	16.7	13.5	10.8	3 3 3 2	Average	2	11	24	24	SBC Communications (5)	Low	IV 97	13.7	III 99	-5.3	800-328-8300
21.0	25.0	21.6	15.3	12.8	4 3 1 2	Low	5	NA	40	52	Freddie Mac (4)	Average	IV 98	26.2	III 98	-9.5	800-422-2766
9.5	17.0	15.8	13.8	12.4	2 1 1 4	Low	0	10	23	36	Apple Computer (4)	Average	IV 98	14.1	III 98	-17.8	800-422-2766
17.5	21.8	21.8	16.0	15.7	4 1 1 3	Very low	2	4	39	27	Charles Schwab (14)	High	IV 98	26.6	III 98	-23.5	800-992-2766
23.3	29.9	29.4	NA	NA	1 2	Average	0	8	31	30	Choice Hotels Intl. (8)	High	IV 99	23.9	III 98	-22.1	800-992-2766
NA	NA	NA	NA	NA		Low	2	5	31	26	UnitedGlobalCom A (10)			NA		NA	800-992-2766
29.1	NA	NA	NA	NA	1	Average	2	4	39	30	Cisco Systems (6)			NA		NA	800-766-4111
29.5	28.3	24.4	19.7	17.4	1 3 3 1	High	2	17	49	42	Microsoft (4)	Average	IV 99	40.6	III 98	-7.9	800-333-1001
52.8	NA	NA	NA	NA	1	High	1	3	51	61	AT&T Liberty Media Cl. A (2)			NA		NA	800-333-1001
20.3	22.6	17.8	19.8	17.0	1 1 4 1	Very high	1	8	48	46	Microsoft (5)	High	IV 99	42.9	III 98	-19.4	800-333-1001
NA	NA	NA	NA	NA	3	Average	1	4	19	11	Wolverine World Wide (3)			NA		NA	800-333-1001
30.5	30.8	27.9	NA	NA	3 1	High	1	7	47	64	Cox Radio Cl. A (2)	High	IV 99	59.0	III 98	-29.2	800-333-1001
0.8	NA	NA	NA	NA	4	Low	5	100	25	-2	Commercial Bank Greece (3)			NA		NA	212-756-4097
12.2	13.6	11.7	NA	NA	2 4 3	Low	0	100	29	14	Banca Commerciale Italiana (3)	Average	I 98	18.6	III 98	-17.7	212-756-4097
25.4	NA	NA	NA	NA	2	Very low	0	NA	27	23	NA			NA		NA	800-441-7762
NA	NA	NA	NA	NA	1		3	6	42	61	Cisco Systems (4)			NA		NA	800-426-9363
NA	NA	NA	NA	NA	1		2	4	43	46	MedImmune (4)			NA		NA	800-426-9363
19.0	22.9	21.9	NA	NA	3 3	Average	3	13	43	52	Microsoft (7)	Average	IV 99	21.9	III 98	-12.8	800-252-1784
18.3	17.5	16.1	NA	NA	4 2	High	3	96	38	33	Nokia Cl. A (3)	Average	IV 99	37.2	III 98	-16.3	800-252-1784
17.0	23.7	20.9	20.0	17.2	1 1 1 2	Very high	3	7	47	42	Sun Microsystems (5)	High	IV 99	32.5	III 98	-18.9	800-656-3017
18.5	23.5	21.7	NA	NA	1 3 2	Very high	2	8	46	36	Apple Computer (5)	High	IV 99	31.4	III 98	-19.9	800-656-3017
33.1	NA	NA	NA	NA	1	High	4	2	38	22	Outdoor Systems (3)			NA		NA	800-426-9157
11.9	13.4	11.9	NA	NA	4 3	Low	2	100	31	18	BP Amoco (2)	Average	IV 98	17.2	III 98	-13.7	800-448-2430
10.4	20.2	18.1	NA	NA	1 4	Average	1	NA	24	14	Xerox (4)	Average	IV 98	16.4	III 99	-14.3	800-448-2430
26.2	28.3	27.2	NA	NA	1 1	Very low	1	3	36	59	Microsoft (4)	Low	IV 98	21.4	III 98	-9.9	800-730-1313
23.0	21.4	20.7	NA	NA	3 3	Average	3	98	36	23	Mannesmann (2)	Average	IV 99	32.1	III 98	-16.6	800-730-1313
17.8	24.1	21.5	NA	NA	3 1	High	6	NA	39	40	DII Grp. (2)	Very high	III 97	30.1	III 98	-24.4	800-730-1313
11.5	15.4	12.1	10.3	7.9	1 4 4 1	Very high	2	2	40	19	Sun Microsystems (2)	Low	IV 98	12.4	III 98	-6.5	800-368-2748

erly IDS Emerging Markets A. (u) Formerly IDS Equity Select A. (v) Formerly IDS Equity Value B. (w) Formerly IDS Global Growth A. (x) Formerly IDS Growth A. (y) Formerly IDS In-nal A. (z) Formerly IDS Managed Allocation A. (aa) Formerly IDS Mutual A. (bb) Formerly IDS New Dimensions A. (cc) Formerly IDS Progressive A. (dd) Formerly IDS Research Oppor-A. (ee) Formerly IDS Small Company Index A. (ff) Formerly IDS Stock A. (gg) Formerly IDS Strategy Aggressive B. (hh) Formerly IDS Utilities Income A. (ii) Formerly Baron Growth & (jj) Formerly Bernstein International Value.

DATA: MORNINGSTAR, INC., CHICAGO, IL

MUTUAL FUND SCOREBOARD

FUND	OVERALL RATING (COMPARES RISK-ADJUSTED PERFORMANCE OF EACH FUND AGAINST ALL FUNDS)	CATEGORY	RATING (COMPARES RISK-ADJUSTED PERFORMANCE OF FUND WITHIN CATEGORY)	SIZE ASSETS $MIL.	% CHG. 1998-99	FEES SALES CHARGE (%)	EXPENSE RATIO (%)	1999 RETURNS (% PRE-TAX	AFTER-TAX
CALVERT WORLD VALUE INTL. EQ. A	C–	Foreign	C	269.7	20	4.75	1.86†	30.1	28.7
CAPITAL INCOME BUILDER	B	Domestic Hybrid	C	8476.1	–8	5.75	0.64†	–2.7	–4.7
CAPITAL WORLD GROWTH & INCOME	B+	World	B+	9442.2	9	5.75	0.78†	27.3	25.0
CENTURY SHARES	C–	Financial	D	333.0	–20	No load	0.78	–12.4	–14.6
CGM CAPITAL DEVELOPMENT	D	Mid-cap Blend	D	593.0	–16	No load‡	1.07	7.7	7.1
CGM MUTUAL	C–	Large-cap Blend	F	865.0	–8	No load	1.02	20.5	15.2
CGM REALTY	C–	Real Estate	B	360.0	–17	No load	1.04	2.6	0.4
CHASE VISTA CAPITAL GROWTH A	C–	Mid-cap Blend	C	583.1	–24	5.75	1.27†	12.8	9.9
CHASE VISTA GROWTH & INCOME A	C	Large-cap Value	C–	1376.9	–14	5.75	1.25†	8.1	4.9
CHESAPEAKE AGGRESSIVE GROWTH	D	Mid-cap Growth	F	298.5	–30	3.00‡	1.42	49.4	46.0
CITIFUNDS LARGE CAP GROWTH A (kk)	B	Large-cap Growth	C	540.0	11	5.00	1.05†	17.2	14.0
CITIZENS INDEX		Large-cap Growth		681.2	56	No load	1.58†	27.5	26.1
CLIPPER	A	Large-cap Value	A	1041.6	–16	No load	1.06	–2.0	–4.8
COHEN & STEERS REALTY SHARES	C–	Real Estate	C	1415.9	–27	No load	1.03	2.7	1.0
COLUMBIA BALANCED	A	Domestic Hybrid	A	1014.1	4	No load	0.67	12.7	10.9
COLUMBIA COMMON STOCK	A	Large-cap Blend	B+	902.2	13	No load	0.80	25.8	24.0
COLUMBIA GROWTH	B	Large-cap Growth	C	2025.0	16	No load	0.68	26.0	23.5
COLUMBIA SPECIAL	C–	Mid-cap Growth	C	801.4	–17	No load	1.03	36.3	34.1
CONCERT INVMT. GROWTH & INCOME 1	B	Large-cap Blend	C–	1177.5	4	8.50	0.83	17.2	13.3
CONCERT INVESTMENT GROWTH 1	B	Large-cap Blend	C	4580.4	16	8.50	0.78	29.2	27.5
DAVIS FINANCIAL A	C	Financial	B+	425.2	–8	4.75	1.06†	–0.9	–0.9
DAVIS N.Y. VENTURE A	B	Large-cap Value	B	8139.4	19	4.75	0.91†	17.6	17.0
DELAWARE BALANCED A	C	Domestic Hybrid	D	534.9	–17	5.75	0.98†	–8.0	–10.8
DELAWARE DECATUR EQUITY INC. A (ll)	C	Large-cap Value	C	1615.6	–17	5.75	0.90†	–3.7	–5.0
DELAWARE DELCAP A	C–	Mid-cap Growth	C	791.7	17	5.75	1.40†	64.7	60.0
DELAWARE GROWTH & INCOME A (mm)	C	Large-cap Value	C–	841.5	–17	5.75	1.13†	–3.2	–4.6
DELAWARE SELECT GROWTH B (nn)		Mid-cap Growth		353.2	569	5.00**	2.35†	76.9	74.0
DELAWARE TREND A	C–	Small-cap Growth	B+	599.2	34	5.75	1.45†	71.3	66.3
DODGE & COX BALANCED	B+	Domestic Hybrid	B	5116.8	–10	No load	0.54	12.1	9.2
DODGE & COX STOCK	B	Large-cap Value	B	4485.6	3	No load	0.57	20.2	18.0
DOMINI SOCIAL EQUITY	A	Large-cap Blend	B+	1343.8	88	No load	0.98†	22.6	22.4
DREYFUS	C	Large-cap Value	D	2834.9	9	No load	0.73	24.1	22.1
DREYFUS APPRECIATION	B+	Large-cap Blend	B	4750.9	14	No load	0.89	10.0	9.7
DREYFUS DISCIPLINED STOCK	B+	Large-cap Blend	B	3523.4	25	No load	0.99†	18.2	17.4
DREYFUS EMERGING LEADERS		Small-cap Blend		514.0	230	1.00*	1.38	38.3	38.2
DREYFUS FOUNDERS DISCOVERY (oo)	C–	Small-cap Growth	C	647.5	171	No load	1.55†	94.6	87.0
DREYFUS FOUNDERS GROWTH (pp)	B	Large-cap Growth	C	2936.8	24	No load	1.08†	39.1	33.9
DREYFUS FOUNDERS GROWTH & INCOME (qq)	B	Large-cap Blend	C	509.1	–6	No load	1.08†	15.1	12.5
DREYFUS GROWTH & INCOME	C	Large-cap Value	C–	1628.7	–8	No load	1.10	16.8	13.8
DREYFUS GROWTH OPPORTUNITY	C	Large-cap Value	C	506.6	8	No load	1.04	23.3	20.6
DREYFUS INTERNATIONAL VALUE		Foreign		320.8	78	1.00*	1.44	25.7	24.2
DREYFUS MIDCAP INDEX	C	Mid-cap Blend	C	323.0	18	1.00*	0.50	14.0	9.2
DREYFUS NEW LEADERS	C–	Mid-cap Blend	C	676.1	–2	1.00*	1.14	37.4	34.4
DREYFUS PREMIER CORE VALUE A	C	Large-cap Value	C	589.9	6	5.75	1.15†	17.2	14.2
DREYFUS PREMIER TECH. GROWTH A (rr)		Technology		747.8	NM	5.75	NA	158.0	157.6
DREYFUS PREMIER THIRD CENTURY Z (ss)	B+	Large-cap Growth	B	1397.3	33	No load‡	0.96	30.2	27.6
DREYFUS PREMIER WORLDWIDE GROWTH B	B+	Large-cap Growth	B	1021.0	55	4.00**	1.95†	15.4	15.3
DREYFUS S&P 500 INDEX	A	Large-cap Blend	B+	3056.7	42	1.00*	0.50	20.3	19.6
DREYFUS SMALL COMPANY VALUE	C–	Small-cap Value	C	304.6	–7	1.00*‡	1.21	21.3	18.9
DRIEHAUS INTERNATIONAL GROWTH		Foreign		274.9	24	No load	2.00	99.0	94.9
EATON VANCE TAX-MGD. GROWTH B		Large-cap Growth		3199.3	46	5.00**	1.37†	16.2	16.2
EATON VANCE UTILITIES A	B+	Utilities	B	510.0	25	5.75	1.13†	40.8	34.9
ENTERPRISE GROWTH A	B+	Large-cap Growth	B	1262.3	53	4.75	1.48†	22.1	21.0
EUROPACIFIC GROWTH	B	Foreign	A	30363.5	46	5.75	0.84†	57.0	55.5
EVERGREEN B	C	Mid-cap Blend	B	683.1	–6	5.00**	2.19†	14.9	14.0
EVERGREEN BALANCED A		Domestic Hybrid		1163.2	–1	4.75	0.96†	11.9	8.4
EVERGREEN BLUE CHIP A		Large-cap Blend		452.6	51	4.75	1.20†	28.1	26.4
EVERGREEN CAPITAL GROWTH A (tt)	B	Large-cap Blend	C	262.0	2	5.75	1.34	5.5	5.1
EVERGREEN FOUNDATION B	B+	Domestic Hybrid	C	1553.5	13	5.00**	2.01†	12.5	11.6
EVERGREEN GROWTH & INCOME B	B	Mid-cap Blend	B+	834.9	–18	5.00**	2.21†	13.4	12.9
EVERGREEN GROWTH CL (uu)		Small-cap Growth		349.7	850	1.00**	NA	20.3	19.1
EVERGREEN OMEGA B	C	Large-cap Growth	C–	490.8	245	5.00**	2.10†	43.3	42.2
EVERGREEN SMALL CO. GROWTH A		Small-cap Growth		867.4	24	4.75	1.15†	75.7	75.7
EVERGREEN STRATEGIC GROWTH A		Large-cap Growth		965.3	16	4.75	1.10†	37.4	33.1
EVERGREEN VALUE A	C	Large-cap Value	D	408.7	–13	4.75	1.01†	4.5	1.6
EXCELSIOR BLENDED EQUITY	B	Large-cap Blend	C	855.3	29	No load	0.95	22.8	22.0
EXCELSIOR INTERNATIONAL	C–	Foreign	C	310.1	35	No load	1.44	56.2	56.2
EXCELSIOR LARGE CAP GROWTH		Large-cap Growth		354.5	143	No load	1.04	47.5	47.5
EXCELSIOR VALUE & RESTRUCTURING	B	Large-cap Value	B+	821.5	38	No load	0.93	42.0	41.8
EXPEDITION EQUITY INSTL.		Large-cap Blend		397.9	25	No load	1.08	26.4	23.6

*Includes redemption fee. **Includes deferred sales charge. †12(b)-1 plan in effect. ‡Not currently accepting new accounts. §Less than 0.5% of assets. NA=Not available. NM=Not mean
(kk) Formerly CitiFunds Large Cap Growth. (ll) Formerly Delaware Decatur Income A. (mm) Formerly Delaware Decatur Total Return A. (nn) Formerly Delaware Aggressive Growth B. (o
merly Founders Discovery. (pp) Formerly Founders Growth. (qq) Formerly Founders Blue Chip. (rr) Formerly Dreyfus Technology Growth. (ss) Formerly Dreyfus Third Century. (tt) Formerl
tor Capital Growth A. (uu) Formerly Mentor Growth BL.

GE ANNUAL TOTAL RETURNS (%)					HISTORY	PORTFOLIO DATA						RISK					TELEPHONE
1 YEARS AFTERTAX	5 YEARS PRETAX	5 YEARS AFTERTAX	10 YEARS PRETAX	10 YEARS AFTERTAX	RESULTS VS ALL FUNDS	TURNOVER	CASH %	FOREIGN %	P-E RATIO	UNTAXED GAINS (%)	LARGEST HOLDING COMPANY (% ASSETS)	LEVEL	BEST QTR	BEST %RET	WORST QTR	WORST %RET	
15.4	15.1	13.6	NA	NA	4 2	Average	8	100	36	30	NTT Mobile Comms. (3)	Average	IV 99	20.4	III 98	-14.8	800-368-2748
8.0	14.6	12.2	12.3	10.2	1 3 3 3	Low	28	46	21	2	Deutsche Telekom (2)	Very low	IV 96	9.8	III 99	-5.3	800-421-4120
17.7	20.8	18.4	NA	NA	2 2	Low	12	65	28	29	Deutsche Telekom (2)	Low	IV 99	16.4	III 98	-9.7	800-421-4120
10.2	17.4	15.5	12.6	10.8	3 4 1 4	Very low	1	2	18	73	Progressive (9)	High	II 97	19.9	III 99	-19.8	800-321-1928
9.3	21.3	17.0	20.0	15.4	1 2 1 5	Very high	0	14	26	6	Nokia Cl. A ADR (8)	High	IV 98	29.4	III 98	-21.7	800-345-4048
8.0	16.8	12.7	13.7	10.4	1 3 2 2	Very high	0	17	29	14	Philip Morris (7)	Average	IV 98	19.3	III 98	-13.8	800-345-4048
-1.7	12.1	9.4	NA	NA	1 4	Average	0	NA	17	-34	SL Green Realty (9)	Average	IV 96	22.0	III 98	-11.6	800-345-4048
10.9	17.4	14.6	17.0	15.3	1 1 3 3	High	3	NA	32	40	AT&T Liberty Media Cl. A (8)	Average	IV 98	17.5	III 98	-19.6	800-348-4782
13.5	19.5	16.2	17.2	14.8	1 3 1 3	Average	11	2	29	40	Citigroup (3)	Average	IV 98	16.6	III 98	-12.2	800-348-4782
16.3	19.1	16.9	NA	NA	3 2	High	3	1	40	48	Jones Apparel Group (5)	Very high	IV 99	37.1	III 98	-29.3	800-525-3863
23.6	25.1	21.5	NA	NA	2 2 4 1	Average	7	NA	42	35	General Electric (12)	Average	IV 98	22.6	III 98	-7.7	800-721-1899
33.9	NA	NA	NA	NA	1	Low	1	1	40	47	Microsoft (9)			NA		NA	800-223-7010
11.3	21.5	17.9	15.1	12.1	2 3 1 3	Average	36	5	19	17	Fannie Mae (10)	Very low	II 97	14.2	III 99	-4.3	800-776-5033
-1.3	9.4	7.5	NA	NA	1 3 4	Low	4	1	19	-8	Vornado Realty Trust (10)	Average	IV 96	19.7	III 98	-11.9	800-437-9912
14.5	17.6	14.7	NA	NA	3 3 2	High	1	5	42	22	Microsoft (2)	Very low	IV 98	12.9	III 98	-4.8	800-547-1707
23.2	25.8	22.6	NA	NA	2 2 2	High	1	5	42	41	Microsoft (4)	Low	IV 98	23.3	III 98	-11.5	800-547-1707
25.2	27.2	23.9	18.5	15.5	2 2 1 1	High	1	2	43	47	Tyco International (5)	Average	IV 98	25.6	III 98	-14.6	800-547-1707
19.9	21.2	18.1	17.2	14.5	2 1 3 2	High	2	2	41	60	Univision Comms. A (3)	High	IV 99	37.4	III 98	-12.8	800-547-1707
16.8	22.9	18.9	15.0	12.0	2 4 1 2	Low	1	1	31	43	General Electric (4)	Average	IV 98	19.5	III 98	-12.3	800-544-5445
25.3	27.4	23.7	17.8	14.8	2 3 2 1	High	5	3	42	52	Sepracor (3)	Average	IV 98	23.6	III 98	-11.7	800-544-5445
17.7	26.5	25.2	NA	NA	1 1 3	Very low	0	1	24	21	American Express (12)	Average	IV 98	20.1	III 98	-15.9	800-279-0279
20.9	26.3	24.8	18.8	16.8	1 2 1 2	Very low	6	2	31	34	American Express (7)	Average	IV 98	21.4	III 98	-14.4	800-279-0279
7.5	14.0	10.8	10.9	8.0	2 3 3 4	Average	1	4	27	14	Tyco International (3)	Low	IV 98	15.1	III 99	-9.0	800-523-4640
7.8	17.0	13.0	11.3	8.0	4 3 1 4	Average	0	14	26	1	Bank of America (3)	Low	II 97	13.7	III 98	-9.8	800-523-4640
26.0	26.7	22.3	17.1	14.5	3 2 3 1	High	5	0	46	54	Clear Channel Comms. (5)	High	IV 99	48.1	III 98	-16.3	800-523-4640
9.4	18.1	14.8	12.1	9.1	4 3 1 4	Average	1	13	28	8	GTE (3)	Average	II 97	15.3	III 98	-10.9	800-523-4640
48.6	NA	NA	NA	NA	1	Very high	7	2	46	25	Gemstar Intl. Group (4)			NA		NA	800-523-4640
28.9	29.7	26.3	20.6	17.7	2 1 3 1	Average	6	4	41	48	Applied Micro Circuits (5)	High	IV 99	35.0	III 98	-15.8	800-523-4640
10.7	16.3	14.0	13.0	11.0	2 3 1 1	Low	4	10	32	20	Alcoa (2)	Very low	II 97	11.0	III 98	-7.9	800-621-3979
15.4	21.6	19.4	15.5	13.7	3 1 1 3	Low	3	10	32	30	Alcoa (3)	Low	II 99	16.6	III 98	-14.3	800-621-3979
30.2	29.6	29.2	NA	NA	3 1 1	Very low	1	0	37	29	Microsoft (9)	Low	IV 98	24.6	III 98	-9.8	800-762-6814
14.6	18.2	13.6	11.9	8.7	3 4 3 2	High	1	4	39	32	General Electric (6)	Average	IV 98	20.3	III 98	-12.9	800-373-9387
22.2	26.1	25.7	16.8	16.0	1 4 1 2	Very low	1	6	34	35	Intel (6)	Low	IV 98	20.5	III 98	-10.2	800-373-9387
23.6	27.5	25.5	18.3	16.6	1 3 1 2	Average	0	6	37	34	Microsoft (4)	Average	IV 98	22.6	III 98	-12.2	800-373-9387
24.9	NA	NA	NA	NA	1	High	3	8	32	22	Applied Micro. Circuits (2)			NA		NA	800-373-9387
31.5	31.7	27.3	24.0	21.6	1 2 3 1	High	9	3	39	47	Cree Research (3)	High	IV 99	41.9	III 98	-22.7	800-525-2440
26.2	30.2	26.1	20.1	17.1	3 1 1 1	High	7	3	47	37	Cisco Systems (4)	Average	IV 99	31.8	III 98	-13.6	800-525-2440
13.0	21.1	16.2	14.4	10.2	3 2 2 2	Very high	10	4	40	11	Cisco Systems (4)	Low	IV 99	17.9	III 98	-7.2	800-525-2440
11.9	16.9	13.5	NA	NA	2 3 3	High	14	4	32	29	General Electric (4)	Average	IV 98	18.5	III 98	-11.7	800-373-9387
15.1	20.9	17.1	12.8	9.5	3 4 2 2	High	0	4	40	27	General Electric (6)	Average	IV 98	20.5	III 98	-11.4	800-373-9387
13.3	NA	NA	NA	NA	3	Low	4	100	25	13	Murata Mfg. (2)			NA		NA	800-373-9387
16.7	22.4	18.8	NA	NA	2 2 2	Average	1	NA	31	22	Veritas Software (2)	Average	IV 98	27.8	III 98	-14.6	800-373-9387
14.6	19.2	16.9	14.7	12.1	3 1 2 2	High	4	6	36	54	Tiffany (3)	Average	IV 99	24.5	III 98	-20.4	800-373-9387
12.3	21.0	16.4	12.8	9.5	4 2 1 3	Average	1	7	26	23	Citigroup (3)	Average	II 97	15.3	III 98	-14.6	888-338-8084
NA	NA	NA	NA	NA			15	9	52	38	Taiwan Semicon ADR (4)			NA		NA	800-645-6561
27.2	29.9	26.6	18.0	15.3	3 4 1 1	Average	1	3	41	44	Sun Microsystems (4)	Average	IV 98	24.3	III 98	-11.4	800-373-9387
21.8	23.0	22.8	NA	NA	3 3	Very low	4	44	37	23	Intel (5)	Low	IV 98	19.9	III 98	-13.0	800-554-4611
26.2	27.9	26.9	17.5	16.2	3 5 1 2	Very low	2	3	37	40	Microsoft (4)	Low	IV 98	21.3	III 98	-10.1	800-373-9387
11.8	21.2	19.2	NA	NA	1 3	High	2	2	25	3	Quest Diagnostics (2)	High	II 99	29.4	III 98	-27.2	800-373-9387
35.0	NA	NA	NA	NA	1	Very high	6	97	48	57	Television Francaise 1-TF1 (2)			NA		NA	800-560-6111
23.8	NA	NA	NA	NA	2	Very low	5	5	37	20	American Intl. Group (3)			NA		NA	800-225-6265
22.4	22.5	18.9	13.4	10.0	3 4 4 1	High	5	17	21	49	Energis (9)	Low	IV 99	23.6	III 98	-6.0	800-225-6265
27.2	31.4	30.0	20.2	18.1	2 2 1 1	Low	2	NA	42	32	Procter & Gamble (5)	Average	IV 98	26.8	III 98	-14.0	800-432-4320
23.8	21.5	19.9	16.0	14.7	2 1 3 1	Low	9	98	34	46	Mannesmann ADR (3)	Low	IV 99	29.1	III 98	-13.6	800-421-4120
15.8	20.1	19.4	NA	NA	3 3	Very low	18	4	41	51	Clear Channel Comms. (8)	Average	IV 99	15.6	III 98	-14.7	800-343-2898
NA	NA	NA	NA	NA		High	1	3	42	19	General Electric (3)			NA		NA	800-343-2898
NA	NA	NA	NA	NA		High	13	4	43	29	General Electric (4)			NA		NA	800-343-2898
19.5	23.4	20.3	NA	NA	4 1 2	High	5	NA	33	14	Tyco International (5)	Low	IV 98	20.5	III 98	-11.4	800-225-2618
14.9	17.2	16.0	NA	NA	3 3	Very low	5	5	40	27	Intel (3)	Low	IV 99	11.5	III 98	-6.4	800-343-2898
14.7	20.0	19.2	NA	NA	1 3	Low	15	6	33	28	Sony ADR (3)	Low	IV 99	16.8	III 98	-14.6	800-343-2898
11.5	NA	NA	NA	NA	3	Average	4	4	38	NA	Benchmark Electronics (1)			NA		NA	800-225-2618
28.0	27.3	24.2	NA	NA	3 1	High	10	NA	48	26	Monsanto (3)	Average	IV 99	28.9	III 98	-10.5	800-343-2898
NA	NA	NA	NA	NA		Average	8	2	42	21	Roper Industries (3)			NA		NA	800-343-2898
NA	NA	NA	NA	NA		High	8	6	49	32	Intel (4)			NA		NA	800-343-2898
9.9	17.7	14.2	12.5	9.9	3 3 3 3	Average	9	1	27	19	ExxonMobil (5)	Average	II 97	11.7	III 99	-9.7	800-343-2898
26.0	26.0	24.2	17.7	16.3	3 1 3 1	Low	1	1	36	53	Pfizer (5)	Average	IV 98	22.4	III 98	-12.1	800-446-1012
22.2	16.2	15.7	9.5	8.8	4 2 4 2	Low	2	99	42	33	Datacraft Asia (4)	Average	IV 99	38.7	III 98	-14.9	800-446-1012
NA	NA	NA	NA	NA		Very low	0	2	48	36	America Online (11)			NA		NA	800-446-1012
27.6	29.4	28.7	NA	NA	1 1	Low	-1	10	26	30	Texas Instruments (3)	Average	IV 99	28.0	III 98	-20.5	800-446-1012
NA	NA	NA	NA	NA	1	Average	1	2	38	37	General Electric (4)			NA		NA	800-922-2085

DATA: MORNINGSTAR, INC., CHICAGO, IL

THE END OF SLOW

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MUTUAL FUND SCOREBOARD

FUND	OVERALL RATING (COMPARES RISK-ADJUSTED PERFORMANCE OF EACH FUND AGAINST ALL FUNDS)	CATEGORY	RATING (COMPARES RISK-ADJUSTED PERFORMANCE OF FUND WITHIN CATEGORY)	SIZE ASSETS $MIL.	SIZE % CHG. 1998-99	FEES SALES CHARGE (%)	FEES EXPENSE RATIO (%)	1999 RETURNS (%) PRE-TAX	1999 RETURNS (%) AFTER-TAX
FAM VALUE	C–	Small-cap Value	B	373.0	–1	No load	1.19	–4.8	–5.8
FASCIANO	C	Small-cap Growth	A	376.7	62	No load	1.20	6.2	5.8
FEDERATED AMERICAN LEADERS B	B	Large-cap Value	B	1894.0	17	5.50**	1.86†	5.9	5.4
FEDERATED CAPITAL APPRECIATION A	B+	Large-cap Blend	B	292.4	52	6.25**	1.29†	43.4	41.3
FEDERATED EQUITY-INCOME B	B+	Large-cap Blend	C	1377.0	12	5.50**	1.86†	16.6	16.4
FEDERATED GROWTH STRATEGIES A	B	Mid-cap Growth	B+	860.7	43	5.50	1.20	70.7	66.8
FEDERATED INTL. EQUITY A	C–	Foreign	C	392.3	104	5.50	1.63	78.4	73.0
FEDERATED INTL. SMALL CO. A		Foreign		511.9	229	5.50	1.95†	126.2	120.0
FEDERATED STOCK	B	Large-cap Value	B	1614.8	5	No load	0.96	6.1	4.1
FEDERATED UTILITY A	C	Utilities	C–	740.2	–9	5.50	1.23	1.2	–2.1
FIDELITY ADV. BALANCED T	C	Domestic Hybrid	D	2809.7	–8	3.50	1.15†	4.5	2.8
FIDELITY ADV. DIVIDEND GROWTH T		Large-cap Value		274.0	NM	3.50	NA	7.1	7.1
FIDELITY ADV. EQUITY GROWTH T	B+	Large-cap Growth	B	8047.8	43	3.50	1.27†	36.3	33.5
FIDELITY ADV. EQUITY INCOME T	C	Large-cap Value	C–	2514.5	46	3.50	1.20†	3.2	0.9
FIDELITY ADV. GROWTH & INCOME T		Large-cap Blend		996.7	115	3.50	1.30†	25.0	24.9
FIDELITY ADV. GROWTH OPPORT. T	B	Large-cap Value	B+	24245.9	–7	3.50	1.13†	3.9	1.6
FIDELITY ADV. LARGE CAP T		Large-cap Growth		323.2	250	3.50	1.44†	28.8	28.0
FIDELITY ADV. MID CAP T		Mid-cap Growth		505.4	28	3.50	1.39†	38.3	36.1
FIDELITY ADV. NATURAL RESOURCES T	D	Natural Resources	C	260.6	1	4.50*	1.40†	34.4	34.4
FIDELITY ADV. OVERSEAS T	C	Foreign	B	1599.1	39	3.50	1.72†	42.0	40.3
FIDELITY ADV. SMALL CAP T		Small-cap Growth		456.0	355	3.50	1.93†	68.5	67.2
FIDELITY ADV. TECHNOLOGY T		Technology		593.7	292	4.50*	1.46†	89.4	86.5
FIDELITY ADV. VALUE STRATEGIES T (vv)	C–	Small-cap Blend	C	407.8	–10	3.50	1.15†	18.8	12.6
FIDELITY AGGRESSIVE GROWTH (ww)	B	Large-cap Growth	C	11541.0	298	0.75*	1.05	103.0	98.9
FIDELITY ASSET MANAGER	B+	Domestic Hybrid	C	12729.8	–1	No load	0.74	13.6	11.6
FIDELITY ASSET MANAGER: GROWTH	B	Large-cap Value	B+	5260.6	3	No load	0.80	14.0	11.8
FIDELITY ASSET MANAGER: INCOME	A	Domestic Hybrid	B+	892.8	–5	No load	0.69	5.7	3.7
FIDELITY BALANCED	B	Domestic Hybrid	C	5949.2	12	No load	0.65	8.9	4.8
FIDELITY BLUE CHIP GROWTH	B	Large-cap Growth	C	25869.1	30	No load	0.70	24.3	23.2
FIDELITY CAPITAL APPRECIATION	C	Mid-cap Blend	B	3180.9	22	No load	0.67	45.8	42.8
FIDELITY CONTRAFUND	B+	Large-cap Growth	B	43510.7	12	3.00‡	0.61	25.0	20.7
FIDELITY CONTRAFUND II		Large-cap Growth		1058.9	78	3.00	0.87	42.5	40.0
FIDELITY DESTINY I	B	Large-cap Value	B+	7220.3	–2	8.67	0.33†	5.0	1.8
FIDELITY DESTINY II	B+	Large-cap Blend	B	5715.2	14	8.67	0.48†	25.4	23.0
FIDELITY DISCIPLINED EQUITY	B	Large-cap Blend	C	3395.1	8	No load	0.64	22.4	18.1
FIDELITY DIVERSIFIED INTERNATIONAL	B+	Foreign	A	4070.7	89	No load	1.19	50.7	49.1
FIDELITY DIVIDEND GROWTH	B+	Large-cap Blend	B+	13266.4	28	No load	0.84	8.8	6.7
FIDELITY EMERGING MARKETS	F	Diversified Emerging Mkts.	F	435.7	61	4.50*	1.56	70.5	70.5
FIDELITY EQUITY-INCOME	C	Large-cap Value	C	23078.5	–3	No load	0.66	7.2	4.7
FIDELITY EQUITY-INCOME II	C	Large-cap Value	C	18206.8	–6	No load	0.66	4.4	1.6
FIDELITY EUROPE	B	Europe	B	1091.4	–33	4.00*	1.09	18.7	17.3
FIDELITY EUROPE CAPITAL APPRECIATION	B	Europe	C	598.1	–13	4.00*	1.08	23.8	23.0
FIDELITY EXPORT & MULTINATIONAL	C	Large-cap Growth	D	442.4	7	3.75*	0.88	41.8	33.8
FIDELITY FIFTY	C	Large-cap Blend	D	543.5	204	3.00	0.79	45.8	42.8
FIDELITY FREEDOM 2000		Domestic Hybrid		675.4	35	No load	0.08	12.2	10.3
FIDELITY FREEDOM 2010		Domestic Hybrid		1492.9	63	No load	0.08	19.0	17.1
FIDELITY FREEDOM 2020		Large-cap Blend		1384.2	61	No load	0.08	25.3	23.3
FIDELITY FREEDOM 2030		Large-cap Blend		657.4	133	No load	0.08	28.5	26.7
FIDELITY FREEDOM INCOME		Domestic Hybrid		289.3	60	No load	0.08	7.2	5.5
FIDELITY FUND	A	Large-cap Blend	A	14323.5	36	No load	0.55	24.2	22.3
FIDELITY GROWTH & INCOME	B+	Large-cap Blend	B+	47564.0	–2	No load‡	0.66	10.4	8.8
FIDELITY GROWTH COMPANY	A	Large-cap Growth	B+	19209.0	68	No load	0.63	79.5	76.2
FIDELITY INTL. GROWTH & INCOME	C	Foreign	B+	1209.2	39	No load	1.13	53.7	51.3
FIDELITY INTERNATIONAL VALUE	C	Foreign	B	569.1	31	No load	1.21	58.9	57.1
FIDELITY JAPAN	D	Japan	C	1091.4	249	4.50*	1.48	146.1	144.6
FIDELITY JAPAN SMALL CO. (xx)		Japan		1774.6	NM	4.50*	1.23	237.4	236.7
FIDELITY LARGE CAP STOCK		Large-cap Growth		928.3	193	No load	0.90	30.2	29.4
FIDELITY LATIN AMERICA	F	Latin America	C	358.5	17	4.50*	1.33	54.9	54.4
FIDELITY LOW-PRICED STOCK	C	Small-cap Value	B+	6701.6	–27	4.50*	1.08	5.1	3.8
FIDELITY MAGELLAN	B	Large-cap Blend	C	99184.0	19	3.00‡	0.60	24.1	21.6
FIDELITY MID-CAP STOCK	C	Mid-cap Growth	B+	1928.7	8	No load	0.74	39.8	35.4
FIDELITY NEW MILLENNIUM	B	Mid-cap Growth	A	2895.5	72	3.00‡	0.83	108.8	102.4
FIDELITY OTC	B	Mid-cap Growth	A	9476.3	73	No load	0.74	72.5	68.4
FIDELITY OVERSEAS	C	Foreign	B	4832.4	26	No load	1.24	42.9	40.6
FIDELITY PACIFIC BASIN	D	Diversified Pacific/Asia	B	814.4	258	4.00*	1.72	119.6	118.9
FIDELITY PURITAN	B	Domestic Hybrid	C	24713.5	–4	No load	0.63	2.9	0.8
FIDELITY REAL ESTATE INVESTMENT	C–	Real Estate	C	733.6	–41	0.75*	0.86	–1.0	–2.4
FIDELITY RETIREMENT GROWTH	C	Large-cap Blend	C–	5910.6	19	No load	0.57	47.0	41.3
FIDELITY SEL. BANKING (yy)	C–	Financial	C–	632.4	–46	3.75*	1.16	–10.1	–13.6
FIDELITY SEL. BIOTECHNOLOGY	C	Health	B	1243.2	76	3.75*	1.30	77.7	75.5

*Includes redemption fee. **Includes deferred sales charge. †12(b)-1 plan in effect. ‡Not currently accepting new accounts. §Less than 0.5% of assets. NA=Not available. NM=Not meaningful. (vv) Formerly Fidelity Advisor Strategic Opp T. (ww) Formerly Fidelity Emerging Growth. (xx) Formerly Fidelity Japan Small Companies. (yy) Formerly Fidelity Select Regional Banks.

AGE ANNUAL TOTAL RETURNS (%)					HISTORY	PORTFOLIO DATA						RISK					TELEPHONE
EARS AFTERTAX	5 YEARS PRETAX	5 YEARS AFTERTAX	10 YEARS PRETAX	10 YEARS AFTERTAX	RESULTS VS. ALL FUNDS	TURNOVER	CASH %	FOREIGN %	P-E RATIO	UNTAXED GAINS (%)	LARGEST HOLDING COMPANY (% ASSETS)	LEVEL	BEST QTR	BEST %RET	WORST QTR	WORST %RET	
10.7	13.4	12.2	13.3	12.3	1 1 4 3	Very low	18	NA	17	31	Conmed (5)	Average	III 97	17.0	III 98	-15.2	800-932-3271
10.6	18.1	16.9	14.0	12.7	1 3 2 3	Low	20	4	26	5	Intl. Speedway Cl. A (2)	Average	II 97	14.3	III 98	-13.4	800-848-6050
15.0	21.2	18.8	NA	NA	1 3	Low	2	4	25	15	Sun Microsystems (4)	Average	IV 98	15.8	III 98	-11.9	800-341-7400
28.9	29.6	27.1	18.5	16.7	2 1 1 1	Average	1	9	38	41	Cisco Systems (2)	Average	IV 99	27.6	III 98	-15.3	800-341-7400
17.1	21.8	20.0	NA	NA	1 3	Average	3	2	30	25	GTE (2)	Low	IV 98	16.1	III 98	-9.3	800-341-7400
33.1	34.2	29.8	19.0	16.1	2 4 1 1	High	0	3	36	47	America Online (2)	High	IV 99	42.0	III 98	-20.3	800-341-7400
30.9	21.8	19.4	12.2	10.8	4 3 4 1	Very high	6	94	44	42	Sony (2)	Average	IV 99	55.4	III 98	-16.6	800-341-7400
48.1	NA	NA	NA	NA	1	Very high	2	90	43	50	Vestas Wind Systems (1)			NA		NA	800-341-7400
15.5	22.4	18.8	15.5	12.5	2 3 1 3	Low	0	5	26	20	Sun Microsystems (3)	Low	IV 98	16.5	III 98	-11.3	800-341-7400
9.3	15.4	11.9	11.7	8.9	2 4 3 3	Average	3	7	23	11	GTE (4)	Low	IV 97	12.9	I 99	-7.1	800-341-7400
11.3	12.8	10.7	11.4	9.4	1 3 4 3	Average	3	3	30	10	MCI WorldCom (3)	Low	II 97	12.6	III 98	-5.9	800-522-7297
NA	NA	NA	NA	NA			NA	1	31	NA	Fannie Mae (5)			NA		NA	800-522-7297
29.5	30.5	27.9	NA	NA	1 1	High	8	6	36	43	Philip Morris (3)	Average	IV 98	24.1	III 98	-6.0	800-522-7297
12.7	18.1	16.2	NA	NA	2 3	Average	6	4	26	17	Waste Mgmt. (2)	Average	IV 98	17.8	III 98	-12.3	800-522-7297
27.4	NA	NA	NA	NA	1	Average	4	3	34	19	General Electric (3)			NA		NA	800-843-3001
16.3	21.0	19.2	18.1	16.3	1 1 2 3	Low	6	7	29	39	Fannie Mae (5)	Low	IV 98	20.5	III 99	-8.2	800-522-7297
27.7	NA	NA	NA	NA	1	High	4	3	38	21	Microsoft (4)			NA		NA	800-522-7297
24.0	NA	NA	NA	NA	1	High	4	1	31	31	Leggett & Platt (2)			NA		NA	800-522-7297
2.1	13.4	11.6	12.0	10.2	3 1 2 4	High	6	14	41	6	Mobil (8)	High	II 99	19.3	IV 97	-13.2	800-522-7297
19.4	16.5	15.4	NA	NA	2 4 2	Average	5	98	34	37	Elf Aquitaine (2)	Average	IV 99	25.0	III 98	-17.8	800-522-7297
NA	NA	NA	NA	NA		Very high	10	2	34	27	Canandaigua Brands Cl. A (3)			NA		NA	800-522-7297
49.1	NA	NA	NA	NA	1	High	14	10	52	33	Microsoft (8)			NA		NA	800-522-7297
11.2	16.2	13.0	11.8	8.9	3 3 3 3	Average	1	2	23	26	Foodmaker (5)	High	II 99	23.9	III 98	-18.0	800-522-7297
46.9	40.5	37.4	NA	NA	1 2 1	Very high	1	1	45	42	Exodus Communications (6)	High	IV 99	48.3	III 98	-8.4	800-544-8888
14.0	16.5	13.8	13.8	11.4	1 3 4 2	High	9	6	38	19	General Electric (2)	Very low	IV 98	14.1	III 98	-5.8	800-544-8888
16.3	19.1	16.5	NA	NA	2 3 2	High	9	NA	36	22	Wal-Mart Stores (3)	Low	IV 98	16.1	III 98	-8.2	800-544-8888
7.2	10.5	8.4	NA	NA	4 3	High	25	NA	36	6	Amgen (1)	Very low	II 97	5.7	III 99	-0.4	800-544-8888
13.6	15.2	12.3	12.1	9.5	2 3 4 2	High	4	1	26	7	Unisys (4)	Very low	IV 98	12.7	III 98	-4.4	800-544-8888
27.2	25.8	23.7	22.0	20.2	3 1 3 1	Low	4	3	39	38	General Electric (4)	Average	IV 98	23.4	III 98	-8.1	800-544-8888
26.5	24.2	21.3	15.9	12.9	4 1 3 1	High	2	7	38	41	Viacom Cl. B (4)	Average	IV 99	29.8	III 98	-15.8	800-544-8888
23.1	27.5	24.1	22.4	20.0	1 1 1 1	Very high	7	11	37	44	MCI WorldCom (5)	Low	IV 98	23.7	III 98	-9.4	800-544-8888
NA	NA	NA	NA	NA		Very high	8	3	32	16	Microsoft (4)			NA		NA	800-544-8888
16.9	22.9	19.8	19.1	15.3	1 1 1 2	Low	4	7	30	46	Fannie Mae (6)	Low	IV 98	20.8	III 99	-7.9	800-752-2347
24.2	27.3	24.2	21.6	18.2	1 1 1 1	High	3	8	38	33	General Electric (4)	Low	IV 98	25.6	III 98	-10.9	800-752-2347
22.2	24.2	20.7	18.1	15.4	1 2 3 2	High	3	0	34	39	Microsoft (5)	Average	IV 98	21.0	III 98	-13.1	800-544-8888
23.9	22.6	21.3	NA	NA	3 3 3	Average	4	96	33	29	BP Amoco ADR (2)	Low	IV 99	30.4	III 98	-14.5	800-544-8888
20.8	27.6	25.1	NA	NA	1 2	High	3	1	31	19	Fannie Mae (5)	Low	IV 98	19.5	III 99	-9.6	800-544-8888
-9.7	-4.6	-5.0	NA	NA	1 4 4	Average	6	97	19	-21	Telebras ADR (4)	Very high	IV 99	33.4	III 98	-24.4	800-544-8888
14.1	20.1	17.9	14.5	12.4	3 2 1 3	Low	0	9	28	39	General Electric (4)	Average	IV 98	16.2	III 98	-12.9	800-544-8888
14.8	19.6	17.0	NA	NA	1 2 3	Average	7	6	30	37	Citigroup (5)	Average	IV 98	20.6	III 98	-12.0	800-544-8888
18.8	21.3	19.3	13.2	11.9	4 3 2 2	High	1	96	36	30	Glaxo Wellcome (4)	Low	IV 99	21.7	III 98	-17.4	800-544-8888
21.5	22.1	20.0	NA	NA	2 3	Very high	2	95	34	27	Mannesmann (3)	Average	IV 99	23.1	III 98	-19.9	800-544-8888
23.8	31.5	27.4	NA	NA	1 1	Very high	2	3	34	16	Microsoft (5)	High	IV 99	28.4	III 98	-11.3	800-544-8888
24.9	26.0	23.1	NA	NA	2 1	Very high	6	5	39	12	Schlumberger (5)	Average	IV 98	28.6	III 98	-20.7	800-544-8888
12.6	NA	NA	NA	NA	4	Low	18	20	27	9	Fidelity MM: Retirement (19)			NA		NA	800-544-8888
17.6	NA	NA	NA	NA	2	Low	4	21	29	14	Fidelity Investment Grade Bond (11)			NA		NA	800-544-8888
21.2	NA	NA	NA	NA	2	Low	0	19	31	18	Fidelity Disciplined Equity (10)			NA		NA	800-544-8888
22.4	NA	NA	NA	NA	2	Very low	0	19	32	15	Fidelity Disciplined Equity (10)			NA		NA	800-544-8888
8.0	NA	NA	NA	NA	4	Low	40	16	25	3	Fidelity MM: Retirement (40)			NA		NA	800-544-8888
26.8	27.9	25.2	18.2	15.5	3 2 1 1	Average	3	5	35	-6	General Electric (3)	Low	IV 98	23.8	III 98	-10.8	800-544-8888
21.0	24.6	22.7	18.4	16.1	1 2 1 2	Low	6	3	34	42	General Electric (4)	Low	IV 98	20.5	III 98	-8.3	800-544-8888
36.8	34.7	32.3	23.6	21.6	1 1 2 1	Average	4	5	41	56	Microsoft (3)	Average	IV 99	44.5	III 98	-8.3	800-544-8888
20.3	18.0	16.6	11.8	10.7	4 3 4 2	High	1	96	35	41	BP Amoco (2)	Low	IV 99	29.4	III 98	-17.4	800-544-8888
23.3	19.0	18.1	NA	NA	4 2	High	8	91	35	35	Elf Aquitaine (6)	Average	IV 99	34.9	III 98	-19.4	800-544-8888
34.9	16.6	16.4	NA	NA	4 1	Average	5	99	46	42	NTT Mobile Comms. (3)	High	IV 99	37.5	IV 97	-15.5	800-544-8888
45.4	NA	NA	NA	NA	1	Low	10	100	47	43	Shohkoh Fund (3)			NA		NA	800-544-8888
27.9	NA	NA	NA	NA	1	High	5	3	38	18	General Electric (4)			NA		NA	800-544-8888
7.8	6.7	6.3	NA	NA	3 4	Low	10	95	23	-17	Telefonos de Mex. L ADR (13)	Very high	IV 99	35.7	III 98	-30.8	800-544-8888
8.2	16.2	13.8	17.6	14.9	1 1 4 4	Low	0	23	18	15	USEC (1)	Average	II 99	15.5	III 98	-16.8	800-544-8888
25.9	26.2	23.3	18.9	15.9	1 2 2 1	Low	3	4	39	45	General Electric (5)	Average	IV 98	27.2	III 98	-11.1	800-544-8888
23.8	26.5	23.5	NA	NA	2 1	High	4	1	31	29	Leggett & Platt (2)	Average	IV 99	28.5	III 98	-17.2	800-544-8888
45.2	44.2	40.9	NA	NA	1 1	High	2	4	40	61	CMGI (11)	High	IV 99	53.7	III 98	-14.7	800-544-8888
35.9	35.4	32.2	22.9	19.9	1 2 1 1	High	6	4	42	44	Microsoft (9)	Average	IV 99	46.2	IV 97	-11.0	800-544-8888
20.0	17.1	15.7	10.9	9.3	4 3 4 2	Average	5	97	34	41	Elf Aquitaine (2)	Average	IV 99	25.1	III 98	-17.4	800-544-8888
26.0	13.0	12.7	8.3	7.6	4 1 4 1	Average	2	99	42	30	Nippon Telegraph & Tele. (4)	High	IV 99	37.5	IV 97	-17.2	800-544-8888
11.0	15.5	12.6	13.1	10.2	2 1 3 3	Average	4	8	30	16	Citigroup (3)	Low	IV 98	12.7	III 98	-6.7	800-544-8888
-2.3	8.3	6.4	10.0	8.3	1 2 3 4	Low	4	4	22	1	Public Storage (8)	Average	IV 96	19.0	III 98	-11.5	800-544-8888
28.2	26.1	21.5	18.9	14.8	3 1 2 1	Very high	1	11	38	34	Safeway (4)	Average	IV 99	35.7	III 98	-9.5	800-544-8888
11.1	23.9	21.5	20.3	17.7	1 2 1 4	Low	6	NA	19	46	Bank of New York (10)	High	IV 98	18.7	III 98	-16.4	800-544-8888
36.2	33.4	30.8	24.5	22.3	1 4 3 1	Average	6	4	45	43	Amgen (8)	High	IV 99	40.7	II 98	-6.3	800-544-8888

DATA: MORNINGSTAR, INC., CHICAGO, IL

paint job.

How to paint a fence:

Go to the hardware store.

Buy white latex paint, a good brush and tray.

With a cold soft drink in hand, paint.

fig. 1

snow job.

How to paint a fence:

fig. 1

Hire a color consultant or decorator.

fig. 2

Pick at least 100 different designer shades of white.

fig. 3

Do a focus group with neighbors.

fig. 4

Decide on at least two colors and mix them together.

fig. 5

Meet with team of fence specialists at fashionable restaurant.

fig. 6

Choose to use only pony hair paintbrushes from Brazil.

fig. 7

They agree to paint the fence. NEXT SPRING.

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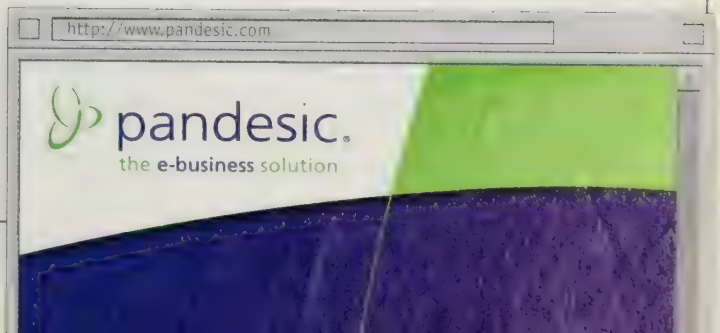

MUTUAL FUND SCOREBOARD

FUND	OVERALL RATING (COMPARES RISK-ADJUSTED PERFORMANCE OF EACH FUND AGAINST ALL FUNDS)	CATEGORY	RATING (COMPARES RISK-ADJUSTED PERFORMANCE OF FUND WITHIN CATEGORY)	SIZE ASSETS $MIL.	SIZE % CHG. 1998-99	FEES SALES CHARGE (%)	FEES EXPENSE RATIO (%)	1999 RETURNS (%) PRE-TAX	1999 RETURNS (%) AFTER-TAX
FIDELITY SEL. BROKERAGE & INVMT.	C–	Financial	C–	447.6	–19	3.75*	1.24	30.6	28.8
FIDELITY SEL. COMPUTERS	C–	Technology	C–	2701.8	78	3.75*	1.23	81.0	74.3
FIDELITY SEL. DEVELOPING COMMUN.	C–	Communications	F	1620.6	264	3.75*	1.34	122.4	118.9
FIDELITY SEL. ELECTRONICS	C	Technology	C	5654.2	108	3.75*	1.15	106.6	102.9
FIDELITY SEL. ENERGY SERVICE	F	Natural Resources	D	618.1	57	3.75*	1.35	72.2	72.2
FIDELITY SEL. FINANCIAL SERVICES	C	Financial	B+	498.5	–17	3.75*	1.18	1.5	0.3
FIDELITY SEL. HEALTH CARE	B	Health	B+	2704.4	–11	3.75*	1.05	–2.9	–4.2
FIDELITY SEL. HOME FINANCE	D	Financial	F	397.6	–60	3.75*	1.18	–12.4	–12.8
FIDELITY SEL. LEISURE	B+	Large-cap Growth	B	354.8	12	3.75*	1.24	32.8	30.3
FIDELITY SEL. SOFTWARE & COMPUTERS	C	Technology	C	1023.7	56	3.75*	1.27	93.2	89.8
FIDELITY SEL. TECHNOLOGY	C	Technology	C	3608.4	240	3.75*	1.20	131.7	120.1
FIDELITY SEL. TELECOMMUNICATIONS	B	Communications	C–	1365.7	68	3.75*	1.25	66.6	61.5
FIDELITY SEL. UTILITIES GROWTH	A	Utilities	A	598.1	19	3.75*	1.16	26.0	21.4
FIDELITY SMALL CAP SELECTOR	D	Small-cap Blend	C–	572.4	–23	1.50*	0.85	14.1	13.9
FIDELITY SMALL CAP STOCK		Small-cap Growth		579.8	5	3.00*	0.99	42.7	42.7
FIDELITY SOUTHEAST ASIA	F	Pacific/Asia ex-Japan Stock	B	420.3	79	4.50*	1.79	91.5	91.5
FIDELITY SPARTAN MARKET INDEX	A	Large-cap Blend	B+	9813.3	37	0.50*	0.19	20.7	20.0
FIDELITY SPARTAN TOTAL MKT. INDEX		Large-cap Blend		639.1	226	No load	0.27	23.2	22.8
FIDELITY STOCK SELECTOR	C	Large-cap Blend	D	1671.5	–4	No load	0.64	26.2	22.5
FIDELITY TREND	D	Large-cap Blend	F	1341.1	12	No load	0.54	40.7	37.4
FIDELITY UTILITIES	A	Utilities	B+	2763.4	30	No load	0.83	26.8	23.2
FIDELITY VALUE	C–	Mid-cap Value	C–	4509.1	–18	No load	0.61	8.6	5.4
FIDELITY WORLDWIDE	C	World	C–	1024.5	1	No load	1.12	30.8	28.5
FIRST EAGLE FUND OF AMERICA Y	B+	Mid-cap Blend	B+	528.5	16	No load	1.50	12.1	8.8
FIRST INVESTORS BLUE CHIP A	B	Large-cap Blend	C	521.1	17	6.25	1.37†	24.7	23.3
FIRST INVESTORS GLOBAL A	C	World	C	1672.3	452	6.25	1.82†	31.7	28.9
FIRST INVESTORS GROWTH & INCOME A	B	Large-cap Blend	C	2183.8	587	6.25	1.39†	23.2	20.8
FIRST INVESTORS MID-CAP A	C–	Mid-cap Growth	C	1122.0	NM	6.25	1.50†	40.3	37.4
FIRSTAR STELLAR RELATIVE VALUE Y (zz)		Large-cap Value		466.3	17	No load	1.00	7.4	7.2
FIRSTHAND TECHNOLOGY INNOVATORS		Technology		420.2	NM	No load	1.92	212.3	211.1
FIRSTHAND TECHNOLOGY LEADERS		Technology		266.5	522	No load	1.94	152.6	151.5
FIRSTHAND TECHNOLOGY VALUE	B	Technology	B+	884.9	397	No load	1.95	190.4	187.8
FLAG INVESTORS COMMUNICATIONS A	A	Communications	B	1950.2	56	4.50	1.05†	45.5	41.7
FLAG INVESTORS EQUITY PARTNERS A		Large-cap Blend		279.5	14	4.50	1.20†	7.3	6.4
FLAG INVESTORS VALUE BUILDER A	B+	Domestic Hybrid	B+	716.2	17	4.50	1.12†	13.8	12.3
FORTIS CAPITAL A	C	Large-cap Growth	C–	546.0	1	4.75	1.10†	34.7	28.3
FORTIS GROWTH A	C–	Mid-cap Growth	C	730.0	–21	4.75	1.05†	53.7	47.8
FPA CAPITAL	C	Mid-cap Value	C	538.8	–20	6.50‡	0.86	14.2	10.6
FRANKLIN BALANCE SHEET INVESTMENT	C	Small-cap Value	B+	1153.7	–24	1.50‡	0.93†	–1.5	–2.1
FRANKLIN CALIFORNIA GROWTH A (aaa)	A	Mid-cap Growth	A	1254.6	66	5.75	0.99†	95.2	95.0
FRANKLIN DYNATECH A (bbb)	B	Large-cap Growth	C	574.6	100	5.75	1.02†	37.2	36.6
FRANKLIN EQUITY A (ccc)	B	Large-cap Blend	C–	807.4	29	5.75	0.92†	52.4	51.0
FRANKLIN EQUITY INCOME A (ddd)	C	Large-cap Value	C	375.8	–16	5.75	0.94†	0.8	–1.5
FRANKLIN GROWTH A (eee)	A	Large-cap Blend	B+	2146.1	13	5.75	0.88†	12.2	11.6
FRANKLIN INCOME A (fff)	C	Domestic Hybrid	D	6458.9	–17	4.25	0.72†	–0.7	–3.3
FRANKLIN REAL ESTATE SECURITIES A (ggg)	C–	Real Estate	B	289.9	–2	5.75	0.96†	–5.6	–7.2
FRANKLIN RISING DIVIDENDS A (hhh)	C–	Mid-cap Blend	C	350.5	–25	5.75	1.39†	–10.3	–11.9
FRANKLIN SMALL CAP GROWTH A (iii)	C–	Small-cap Growth	B+	6865.6	73	5.75	0.94†	97.1	96.8
FRANKLIN UTILITIES A (jjj)	C–	Utilities	F	1482.3	–30	4.25	0.76†	–15.0	–17.0
FREMONT GLOBAL	B	International Hybrid	C	772.6	19	No load	0.85	22.4	18.8
FREMONT U.S. MICRO-CAP	C	Small-cap Growth	A	415.9	152	No load	1.94	129.5	116.8
FUNDAMENTAL INVESTORS	B+	Large-cap Value	A	15558.6	22	5.75	0.63†	24.6	22.0
GABELLI ASSET	A	Mid-cap Blend	A	1994.0	25	No load	1.36†	28.5	25.7
GABELLI GL. INTERACTIVE COUCH POTATO	A	Communications	B+	345.4	367	No load	1.63†	116.1	113.7
GABELLI GLOBAL TELECOMMUNICATIONS	A	Communications	B	459.3	170	No load	1.60†	80.3	76.1
GABELLI GROWTH	A	Large-cap Growth	A	2752.1	48	No load	1.41†	46.3	42.8
GABELLI SMALL CAP GROWTH	C	Small-cap Blend	B+	338.2	5	No load	1.44†	14.2	11.7
GABELLI VALUE	B+	Mid-cap Blend	B+	1204.4	51	5.50	1.40†	31.9	29.4
GALAXY ASSET ALLOCATION RET. A	A	Domestic Hybrid	B+	393.8	9	3.75	1.33	7.2	6.2
GALAXY EQUITY GROWTH RET. A	B+	Large-cap Growth	B	503.8	39	3.75	1.34	26.0	24.4
GALAXY II LARGE CO. INDEX RET.	A	Large-cap Blend	B+	1047.1	40	No load	0.47	20.5	19.8
GALAXY II SMALL CO. INDEX RET.	C–	Small-cap Blend	C	273.2	–12	No load	0.40	11.7	9.2
GAM INTERNATIONAL A	C–	Foreign	C–	1272.9	–53	5.00	1.66†	7.3	7.3
GATEWAY	A	Domestic Hybrid	A	922.1	99	No load	0.99†	13.0	12.9
GOLDMAN SACHS CAPITAL GROWTH A	B+	Large-cap Blend	C	2198.0	16	5.50	1.42†	27.2	25.1
GOLDMAN SACHS CORE LARGE CAP A		Large-cap Growth		413.2	169	5.50	0.97†	36.3	36.2
GOLDMAN SACHS CORE U.S. EQUITY A	B	Large-cap Blend	C	681.6	23	5.50	1.23†	22.9	20.2
GOLDMAN SACHS GROWTH & INCOME A	C	Large-cap Value	D	750.8	–36	5.50	1.22†	5.8	3.9
GOLDMAN SACHS INTL. EQUITY A	C	Foreign	B	1065.1	17	5.50	1.73†	31.0	27.7
GOVERNOR ESTABLISHED GROWTH (kkk)		Large-cap Blend		271.1	4	4.50	0.71	24.2	18.7

*Includes redemption fee. **Includes deferred sales charge. †12(b)-1 plan in effect. ‡Not currently accepting new accounts. §Less than 0.5% of assets. NA=Not available. NM=Not meani
(zz) Formerly Star Relative Value Y. (aaa) Formerly Franklin CA Growth I. (bbb) Formerly Franklin DynaTech I. (ccc) Formerly Fraklin Equity I. (ddd) Formerly Franklin Equity Income I.
Formerly Franklin Growth I. (fff) Formerly Franklin Income I. (ggg) Formerly Franklin Real Estate Securities I. (hhh) Formerly Franklin Rising Dividends I. (iii) Formerly Franklin Small Cap G
I. (jjj) Formerly Franklin Utilities I. (kkk) Formerly KeyPremier Established Growth.

AGE ANNUAL TOTAL RETURNS (%)					HISTORY	PORTFOLIO DATA							RISK					TELEPHONE
5 YEARS AFTERTAX	5 YEARS PRETAX	10 YEARS AFTERTAX	10 YEARS PRETAX	10 YEARS AFTERTAX	RESULTS VS ALL FUNDS	TURNOVER	CASH %	FOREIGN %	P/E RATIO	UNTAXED GAINS (%)	LARGEST HOLDING COMPANY (% ASSETS)	LEVEL	BEST QTR	BEST %RET	WORST QTR	WORST %RET	
29.9	31.1	29.6	22.6	21.5	1 1 1 1	Average	2	8	21	41	Lehman Brothers Hldgs. (7)	High	IV 98	29.1	III 98	-33.1	800-544-8888
45.5	47.6	42.2	35.3	32.3	1 1 1 1	High	13	0	50	52	Microsoft (9)	Very high	IV 99	41.7	IV 97	-25.8	800-544-8888
51.8	39.6	35.4	NA	NA	1 1 1	Very high	14	15	52	43	Nokia Cl. A ADR (10)	Very high	IV 99	63.5	I 97	-15.5	800-544-8888
47.5	53.6	48.7	37.5	34.6	1 1 1 1	High	7	2	54	55	Micron Tech. (7)	Very high	IV 98	56.8	IV 97	-22.3	800-544-8888
8.7	22.9	21.4	10.7	9.8	4 3 1 4	Average	5	2	44	-8	Noble Drilling (7)	Very high	III 97	36.9	III 98	-34.8	800-544-8888
15.9	26.7	24.1	20.5	18.0	1 2 1 2	Average	6	1	19	29	Citigroup (6)	High	IV 98	20.2	III 98	-19.8	800-544-8888
18.7	25.0	21.4	21.7	18.3	1 2 1 2	Average	7	1	36	33	Eli Lilly (8)	Average	II 97	21.3	III 99	-9.1	800-544-8888
1.4	18.2	16.3	20.9	18.9	1 1 1 4	Low	0	NA	13	16	Fannie Mae (6)	High	II 97	19.4	III 98	-25.8	800-544-8888
34.3	30.2	27.0	19.3	17.2	4 1 3 1	High	9	4	41	40	America Online (6)	Average	IV 98	32.2	III 98	-15.3	800-544-8888
44.4	41.9	38.2	31.3	28.1	1 1 1 1	Average	8	1	52	60	Microsoft (17)	High	IV 99	57.1	I 97	-7.6	800-544-8888
57.0	49.2	43.3	35.1	31.4	1 1 1 1	Very high	10	4	55	44	Microsoft (10)	High	IV 99	62.2	IV 97	-19.9	800-544-8888
40.0	32.5	28.5	21.4	18.8	4 1 3 1	High	8	10	44	49	MCI WorldCom (11)	Average	IV 99	36.0	III 98	-15.4	800-544-8888
28.3	28.7	25.0	17.3	14.3	3 4 2 1	High	7	4	36	35	MCI WorldCom (9)	Very low	IV 98	23.0	III 99	-4.2	800-544-8888
9.3	14.1	12.7	NA	NA	3 4	Average	5	3	21	13	VISX (4)	High	II 97	17.4	III 98	-24.5	800-544-8888
NA	NA	NA	NA	NA		High	12	25	30	-3	Videotron Groupe (4)			NA		NA	800-544-8888
3.2	6.4	6.0	NA	NA	4 4	Average	1	100	32	4	HSBC Hldgs. (HK) (8)	Very high	IV 99	43.2	IV 97	-28.6	800-544-8888
26.4	28.2	27.1	NA	NA	3 1 1	Very low	0	2	35	4	Microsoft (4)	Low	IV 98	21.4	III 98	-10.0	800-544-8888
NA	NA	NA	NA	NA		Very low	0	0	33	12	S&P 500 Index (Fut.) (4)			NA		NA	800-544-8888
19.9	24.4	21.1	NA	NA	2 1 2	High	3	5	31	41	Microsoft (5)	Average	IV 98	19.7	III 98	-15.9	800-544-8888
14.0	17.6	14.5	13.2	10.8	3 2 3 2	Very high	1	5	35	29	Microsoft (3)	High	IV 99	24.9	III 98	-27.0	800-544-8888
25.7	25.7	22.8	16.7	14.1	2 3 3 1	Average	10	7	33	40	MCI WorldCom (13)	Very low	IV 98	18.5	III 99	-5.0	800-544-8888
6.1	14.4	11.1	13.2	10.8	3 1 2 4	Low	7	2	24	7	Nalco Chemical (4)	Average	II 99	25.6	III 98	-20.1	800-544-8888
14.5	14.9	13.5	NA	NA	1 4 3	High	2	50	31	30	General Electric (2)	Average	IV 99	20.4	III 98	-21.2	800-544-8888
17.1	25.4	21.6	16.6	13.3	4 1 1 2	Average	16	NA	30	5	General Dynamics (6)	Average	IV 98	16.8	III 98	-13.5	800-451-3623
21.4	24.6	22.8	15.2	13.4	3 4 1 2	Average	4	5	35	36	General Electric (3)	Low	IV 98	20.0	III 98	-12.9	800-423-4026
16.5	17.5	15.1	10.0	8.6	4 4 3 2	Average	3	63	34	9	Telecom Italia (2)	Low	IV 99	20.1	III 98	-15.7	800-423-4026
23.4	24.8	23.8	NA	NA	1 2	Low	7	4	31	8	General Electric (3)	Low	IV 98	19.4	III 98	-10.8	800-423-4026
21.6	21.7	20.1	NA	NA	3 3	Average	19	8	32	11	Whole Foods Market (2)	High	IV 98	30.7	III 98	-20.2	800-423-4026
NA	NA	NA	NA	NA		Low	2	7	29	47	IBM (9)			NA		NA	800-677-3863
NA	NA	NA	NA	NA			NA	4	54	33	TranSwitch (7)			NA		NA	408-294-2200
NA	NA	NA	NA	NA		High	13	0	55	45	QUALCOMM (9)			NA		NA	408-294-2200
54.7	58.2	55.9	NA	NA	1 1	High	2	6	53	47	TriQuint Semicon. (7)	Very high	IV 98	60.6	III 98	-29.7	408-294-2200
51.7	41.2	38.0	23.0	20.7	4 2 3 1	Very low	13	10	42	62	America Online (11)	Average	IV 98	51.2	III 99	-6.6	800-767-3524
18.1	NA	NA	NA	NA	2	Low	14	13	27	29	America Online (8)			NA		NA	800-767-3524
16.9	22.3	20.9	NA	NA	3 1 2	Very low	8	12	32	29	America Online (10)	Low	IV 98	17.9	III 98	-9.7	800-767-3524
23.3	25.5	21.1	16.8	13.6	2 3 3 1	High	1	9	40	10	American Intl. Group (3)	Average	IV 99	29.8	III 98	-11.1	800-800-2638
22.6	25.1	21.0	17.3	14.4	1 3 3 1	Average	6	4	38	17	Waters (2)	High	IV 99	43.9	III 98	-16.4	800-800-2638
6.9	20.6	17.4	19.0	15.9	1 1 1 3	Low	1	NA	29	30	Kemet (9)	Average	II 99	21.0	III 98	-23.6	800-982-4372
6.0	13.5	11.7	NA	NA	1 2 4	Very low	17	5	14	5	Niagara Mohawk Hldgs. (3)	Low	II 99	17.6	III 98	-13.6	800-342-5236
34.8	36.9	35.1	NA	NA	1 1 1	Average	9	1	45	48	JDS Uniphase (4)	Average	IV 99	56.4	III 98	-15.3	800-342-5236
25.1	26.6	25.6	18.3	17.3	1 3 3 1	Very low	46	6	48	39	Intel (7)	Average	IV 99	21.9	IV 97	-5.7	800-342-5236
27.8	29.1	26.9	16.5	14.0	4 4 1 1	Average	5	9	38	37	Cisco Systems (3)	Average	IV 99	37.2	III 98	-19.3	800-342-5236
8.7	14.2	11.8	11.7	9.3	2 2 3 3	Low	7	9	23	15	Bell Atlantic (3)	Low	II 99	10.4	III 99	-7.7	800-342-5236
15.7	20.6	19.9	14.1	13.4	2 3 2 3	Very low	25	3	35	46	Tiffany (3)	Very low	IV 98	12.3	III 99	-3.9	800-342-5236
2.8	9.4	6.6	10.2	7.1	1 3 4 4	Low	5	10	14	-4	Florida Progress (2)	Very low	II 95	7.3	III 98	-3.5	800-342-5236
-2.9	8.4	7.0	NA	NA	2 4	Low	6	5	20	-21	Equity Residential Ppty. Tr. (4)	Average	IV 96	14.5	III 98	-11.3	800-342-5236
5.7	15.1	13.0	10.8	9.4	1 4 1 4	Low	2	1	19	16	Family Dollar Stores (6)	Average	IV 98	19.1	III 98	-14.7	800-342-5236
31.0	32.8	31.3	NA	NA	1 1 1 1	Average	10	3	38	40	PMC Sierra (3)	High	IV 99	59.8	III 98	-23.6	800-342-5236
2.3	8.8	6.3	7.4	5.1	2 4 4 4	Very low	2	NA	15	7	FPL Group (4)	Average	IV 97	15.0	I 99	-11.4	800-342-5236
11.3	15.0	11.8	11.0	8.8	3 3 4 3	Average	1	46	35	15	Microsoft (1)	Low	IV 99	16.0	III 98	-8.9	800-548-4539
32.2	42.1	38.9	NA	NA	1 1	High	16	6	40	35	Netopia (5)	High	IV 99	49.7	III 98	-29.0	800-548-4539
19.8	24.3	21.5	16.9	14.2	3 2 1 2	Average	3	19	35	31	Texas Instruments (3)	Low	IV 98	15.5	III 98	-10.4	800-421-4120
24.8	23.8	21.2	16.3	14.4	3 2 2 1	Low	3	9	33	58	AT&T Liberty Media Cl. A (5)	Low	IV 98	18.2	III 98	-14.2	800-422-3554
55.0	39.3	36.4	NA	NA	3 1	High	0	44	45	41	AT&T Liberty Media Cl. A (9)	Low	IV 99	47.4	III 98	-12.8	800-422-3554
44.5	32.3	30.0	NA	NA	4 1	Low	20	40	39	52	Telephone & Data Systems (4)	Low	IV 99	31.0	III 98	-10.7	800-422-3554
36.3	33.8	30.0	20.3	17.7	3 3 1 1	Low	0	NA	43	46	Texas Instruments (5)	Low	IV 98	30.2	III 98	-14.5	800-422-3554
13.7	16.9	14.3	NA	NA	3 1 3	Low	3	3	24	35	Liberty (3)	Average	II 99	17.1	III 98	-20.3	800-422-3554
30.8	26.3	23.0	18.6	15.5	4 1 3 1	Average	4	4	34	44	Viacom Cl. A (9)	Low	II 97	21.3	III 98	-13.2	800-422-3554
13.0	17.8	16.1	NA	NA	4 3 3	High	25	2	39	20	Cisco Systems (3)	Very low	IV 98	11.7	III 98	-3.8	800-628-0414
24.8	27.2	24.9	NA	NA	3 1 1	Average	2	4	39	43	General Electric (3)	Average	IV 98	24.0	III 98	-11.7	800-628-0414
25.9	28.1	26.8	NA	NA	3 1 1 2	Very low	3	3	37	46	Microsoft (4)	Low	IV 98	21.2	III 98	-10.0	800-628-0414
6.2	16.6	13.1	NA	NA	3 2 2	Low	3	0	27	9	Express Scripts Cl. A (1)	High	IV 98	17.4	III 98	-20.9	800-628-0414
13.2	16.0	15.2	14.1	11.8	3 1 3 3	Average	6	100	43	18	Nokia (5)	High	IV 99	31.0	III 98	-10.8	800-426-4685
11.7	11.8	11.1	10.5	8.7	1 4 1 3	Very low	7	3	37	18	General Electric (6)	Very low	IV 98	7.2	III 98	-2.5	800-354-6339
29.5	28.8	24.9	NA	NA	3 4 1	Low	4	2	41	39	Microsoft (4)	Average	IV 98	24.3	III 98	-11.4	800-526-7384
NA	NA	NA	NA	NA	1	Average	5	1	43	23	General Electric (6)			NA		NA	800-526-7384
23.2	26.4	24.6	NA	NA	2 1 2	Average	0	4	36	35	Microsoft (4)	Average	IV 98	21.4	III 98	-14.7	800-526-7384
6.9	16.6	14.5	NA	NA	1 4	High	1	5	33	5	S&P 500 Index (Fut.) (8)	Average	II 97	15.2	III 98	-17.0	800-526-7384
15.2	17.9	16.0	NA	NA	3 2	High	6	100	36	29	Vodafone Airtouch (2)	Average	IV 99	21.7	III 98	-14.4	800-526-7384
21.0	NA	NA	NA	NA	2	Very low	0	6	35	46	Schering-Plough (5)			NA		NA	800-766-3960

DATA: MORNINGSTAR, INC., CHICAGO, IL

MUTUAL FUND SCOREBOARD

FUND	OVERALL RATING (COMPARES RISK-ADJUSTED PERFORMANCE OF EACH FUND AGAINST ALL FUNDS)	CATEGORY	RATING (COMPARES RISK-ADJUSTED PERFORMANCE OF FUND WITHIN CATEGORY)	SIZE ASSETS $MIL.	% CHG. 1998-99	FEES SALES CHARGE (%)	EXPENSE RATIO (%)	1999 RETURNS (% PRE-TAX	AFTER-TAX
GROWTH FUND OF AMERICA	B+	Large-cap Blend	B	23806.5	47	5.75	0.70†	45.7	42.6
GUARDIAN PARK AVENUE A	A	Large-cap Blend	B+	3072.2	3	4.50	0.78†	30.3	27.0
HANCOCK CORE EQUITY B (lll)		Large-cap Blend		664.1	91	5.00**	2.09†	11.6	11.1
HANCOCK FINANCIAL INDUSTRIES B		Financial		2078.8	–25	5.00**	2.07†	–1.6	–1.6
HANCOCK GLOBAL TECHNOLOGY B	C–	Technology	C–	724.5	519	5.00**	2.20†	130.8	128.2
HANCOCK LARGE CAP GROWTH A (mmm)	C–	Large-cap Growth	F	520.8	20	5.00	1.16†	20.5	17.8
HANCOCK LARGE CAP VALUE B (nnn)	B+	Large-cap Blend	B	694.7	27	5.00**	1.91†	37.0	34.3
HANCOCK REGIONAL BANK B	C–	Financial	C	3353.2	–32	5.00**	1.92†	–16.4	–18.2
HANCOCK SMALL CAP GROWTH B (ooo)	C–	Small-cap Growth	B	539.6	24	5.00**	2.07†	63.6	59.7
HANCOCK SOVEREIGN INVESTOR A	B	Large-cap Blend	C–	1787.6	–5	5.00	1.03†	5.9	4.8
HARBOR CAPITAL APPRECIATION	B	Large-cap Growth	C	6924.9	47	No load	0.68	45.8	43.3
HARBOR INTERNATIONAL	C	Foreign	B	5842.6	9	No load‡	0.94	23.9	21.6
HARBOR INTERNATIONAL GROWTH	C	Foreign	B	1458.2	10	No load	0.96	20.2	18.4
HARTFORD ADVISERS A		Domestic Hybrid		645.4	105	5.50	1.38†	12.1	11.0
HARTFORD CAPITAL APPRECIATION A		Mid-cap Growth		634.1	74	5.50	1.44†	66.8	63.2
HARTFORD STOCK A		Large-cap Blend		657.5	146	5.50	1.44†	22.3	21.7
HEARTLAND VALUE	C–	Small-cap Value	C	1040.5	–33	No load	1.15†	25.0	24.9
HIBERNIA CAPITAL APPRECIATION A	B+	Large-cap Blend	B	360.6	5	4.50	1.21†	18.7	15.6
HIGHMARK BALANCED FIDUCIARY	B+	Domestic Hybrid	C	430.3	–6	No load	0.92	5.9	3.2
HIGHMARK GROWTH FIDUCIARY	B+	Large-cap Growth	B	792.1	38	No load	0.90	22.1	19.7
HIGHMARK INCOME EQUITY FIDUCIARY	C	Large-cap Value	C	568.0	–14	No load	0.88	1.7	–3.7
HOMESTEAD VALUE	C	Mid-cap Value	C	424.5	–5	No load	0.72	–3.2	–5.0
HOTCHKIS & WILEY INTERNATIONAL	C	Foreign	C	1424.3	1	No load	0.95	23.4	20.7
ICAP EQUITY	B	Large-cap Value	B	939.2	31	No load	0.80	16.3	15.0
IDEX JCC GLOBAL A (ppp)	A	World	A	561.9	60	5.50	1.82†	63.3	62.4
IDEX JCC GROWTH A (qqq)	B+	Large-cap Growth	B	1322.5	31	5.50	1.51†	58.5	53.5
INCOME FUND OF AMERICA	B+	Domestic Hybrid	C	21403.5	–7	5.75	0.59†	0.5	–2.0
INDEPENDENCE ONE EQUITY PLUS		Large-cap Blend		319.8	23	No load	0.39	31.2	30.3
INTERNET		Technology		701.0	NM	No load	3.08	216.4	216.4
INVESCO BALANCED	A	Domestic Hybrid	A	435.9	67	No load	1.21†	16.8	15.4
INVESCO BLUE CHIP GROWTH	B+	Large-cap Growth	B+	1480.8	21	No load	1.03†	38.5	34.9
INVESCO DYNAMICS	B+	Mid-cap Growth	A	3725.0	140	No load	1.03†	71.8	70.1
INVESCO EQUITY INCOME (rrr)	B+	Large-cap Blend	B	4484.9	–9	No load	0.91†	12.8	10.1
INVESCO EUROPEAN	B	Europe	C	543.3	–30	2.00*	1.34†	38.0	37.2
INVESCO FINANCIAL SERVICES	C	Financial	B	1159.8	–24	No load	1.05†	0.7	–1.2
INVESCO HEALTH SCIENCES	C	Health	C	1579.0	1	No load	1.12†	0.6	–1.8
INVESCO LEISURE	B+	Mid-cap Blend	A	480.3	73	No load	1.41†	65.6	62.7
INVESCO SMALL COMPANY GROWTH	C–	Small-cap Growth	C	509.6	61	No load	1.51†	81.6	75.2
INVESCO TELECOMMUNICATIONS (sss)	A	Communications	B+	1329.7	311	No load	1.32†	144.3	144.1
INVESCO TOTAL RETURN	B	Domestic Hybrid	C	3018.8	–1	No load	0.83†	–1.4	–3.0
INVESCO VALUE EQUITY	C	Large-cap Value	C–	339.1	–22	No load	1.27†	1.1	–0.8
INVESTMENT CO. OF AMERICA	B+	Large-cap Value	A	53747.4	11	5.75	0.55†	16.6	13.9
ISG LARGE CAP EQUITY A	A	Large-cap Growth	B+	768.1	0	3.50	0.99†	18.9	15.4
IVY GROWTH A	C–	Large-cap Growth	D	363.7	19	5.75	1.38†	31.9	27.5
IVY INTERNATIONAL A	C–	Foreign	C–	1575.7	–3	5.75‡	1.58†	21.1	19.6
J.P. MORGAN DIVERSIFIED	A	Domestic Hybrid	B+	338.4	40	No load	0.98	13.9	12.2
J.P. MORGAN U.S. EQUITY	B	Large-cap Blend	C–	428.0	0	No load	0.79	14.7	10.5
J.P. MORGAN U.S. SMALL COMPANY	C–	Small-cap Blend	B	289.0	42	No load	0.97	44.0	44.0
J.P. MORGAN U.S. SMALL CO. OPPORT.		Small-cap Growth		445.0	112	No load	1.07	61.7	61.7
JANUS BALANCED	A	Domestic Hybrid	A	3078.2	171	No load	1.03	23.5	22.4
JANUS ENTERPRISE	B	Mid-cap Growth	B+	3157.3	334	No load	1.08	128.7	123.8
JANUS EQUITY-INCOME		Large-cap Growth		835.5	139	No load	1.21	38.5	37.6
JANUS FUND	A	Large-cap Growth	A	37853.4	48	No load	0.87	48.2	44.5
JANUS GLOBAL LIFE SCIENCES		Health		382.0	185	No load	NA	61.0	61.0
JANUS GLOBAL TECHNOLOGY		Technology		4878.6	NM	No load	NA	211.6	210.9
JANUS GROWTH & INCOME	A	Large-cap Growth	A	6451.9	84	No load	0.96	51.2	49.7
JANUS MERCURY	A	Large-cap Growth	B+	10679.7	243	No load	0.97	105.6	98.7
JANUS OLYMPUS		Large-cap Growth		4753.8	269	No load	1.01	100.1	98.6
JANUS OVERSEAS	A	Foreign	A	7050.2	63	No load‡	0.96	86.1	85.9
JANUS SPECIAL SITUATIONS		Mid-cap Growth		1281.3	43	No load	1.08	64.0	55.2
JANUS TWENTY	A	Large-cap Growth	A	31343.9	98	No load‡	0.91	64.9	63.2
JANUS VENTURE	C	Small-cap Growth	A	2266.2	82	No load‡	0.94	151.9	141.6
JANUS WORLDWIDE	A	World	A	28420.1	74	No load	0.92	64.4	63.8
JAPAN	D	Japan	C	1090.0	213	No load	1.26	119.9	114.1
KAUFMANN	D	Mid-cap Growth	C–	3032.9	–35	0.20*	1.95†	26.0	21.8
KEMPER BLUE CHIP A	B+	Large-cap Blend	B	568.6	35	5.75	1.29	26.1	25.2
KEMPER GLOBAL DISCOVERY S	B	World	B	472.0	33	No load‡	1.65	64.6	62.1
KEMPER GROWTH A	C–	Large-cap Growth	D	2362.6	13	5.75	1.04	36.9	34.5
KEMPER INTERNATIONAL A	C	Foreign	C	443.3	2	5.75	1.64†	41.3	39.2
KEMPER NEW EUROPE M	A	Europe	B+	259.1	–17	2.00*‡	1.41	51.0	44.2

*Includes redemption fee. **Includes deferred sales charge. †12(b)-1 plan in effect. ‡Not currently accepting new accounts. §Less than 0.5% of assets. NA=Not available. NM=Not mean (lll) Formerly John Hancock Independence Equity B. (mmm) Formerly John Hancock Growth A. (nnn) Formerly John Hancock Growth & Income B. (ooo) Formerly John Hancock Emerging C B. (ppp) Formerly Idex Global A. (qqq) Formerly Idex Growth A. (rrr) Formerly Invesco Industrial Income. (sss) Formerly Invesco Worldwide Communications.

AGE ANNUAL TOTAL RETURNS (%)					HISTORY	PORTFOLIO DATA						RISK					TELEPHONE
YEARS AFTERTAX	5 YEARS PRETAX	5 YEARS AFTERTAX	10 YEARS PRETAX	10 YEARS AFTERTAX	RESULTS VS ALL FUNDS	TURNOVER	CASH %	FOREIGN %	P-E RATIO	UNTAXED GAINS (%)	LARGEST HOLDING COMPANY (% ASSETS)	LEVEL	BEST QTR	BEST %RET	WORST QTR	WORST %RET	
31.6	29.4	26.6	19.2	17.1	2 2 2 1	Low	10	12	44	54	Time Warner (4)	Average	IV 98	27.2	III 98	-9.5	800-421-4120
26.0	29.3	26.3	19.9	17.3	3 1 1 1	Average	5	2	39	44	Microsoft (5)	Low	IV 99	25.1	III 98	-12.8	800-221-3253
21.5	NA	NA	NA	NA	2	Average	2	2	38	16	Microsoft (5)			NA		NA	800-225-5291
NA	NA	NA	NA	NA	3	Low	7	14	21	5	American Express (3)			NA		NA	800-225-5291
51.9	42.5	40.7	NA	NA	1 1	High	7	9	53	40	America Online (4)	Very high	IV 99	60.2	IV 97	-14.3	800-225-5291
17.9	22.2	19.2	16.1	13.2	1 2 2 2	Average	1	NA	44	22	Microsoft (4)	High	IV 98	22.4	III 98	-9.5	800-225-5291
26.8	28.6	26.5	NA	NA	4 1 1	Average	0	9	31	38	Media One Group (5)	Average	IV 99	31.4	III 98	-13.1	800-225-5291
7.6	19.5	18.4	18.9	17.2	1 1 1 4	Very low	9	NA	15	58	AmSouth Bancorp (4)	High	IV 98	15.4	III 98	-16.5	800-225-5291
24.8	29.0	26.5	21.5	20.2	1 1 2 1	High	2	3	41	48	Allegiance Telecom (1)	High	IV 99	43.6	III 98	-21.8	800-225-5291
14.6	19.2	17.2	13.8	11.8	1 4 2 3	Average	5	1	29	37	General Electric (4)	Low	IV 98	15.6	III 98	-7.9	800-225-5291
35.2	34.1	32.1	23.7	21.5	1 1 1 1	Average	2	7	48	47	MCI WorldCom (4)	Average	IV 98	30.0	III 98	-13.2	800-422-1050
14.8	17.1	15.7	14.0	12.8	3 1 3 3	Very low	5	100	27	51	LM Ericsson Tele. B (5)	Average	IV 98	18.3	III 98	-16.6	800-422-1050
14.3	20.3	19.4	NA	NA	2 2	Average	5	100	36	25	Rhone-Poulenc Cl. A (6)	Average	IV 99	25.7	III 98	-15.2	800-422-1050
17.8	NA	NA	NA	NA	2	Low	3	2	37	8	Microsoft (2)			NA		NA	888-843-7824
37.2	NA	NA	NA	NA	1	High	2	13	37	23	C-Cube Microsystems (2)			NA		NA	888-843-7824
28.1	NA	NA	NA	NA	1	Low	7	2	37	14	Microsoft (4)			NA		NA	888-843-7824
9.7	16.5	14.8	16.4	14.7	1 1 2 4	Low	0	13	18	19	ICN Pharmaceuticals (4)	High	II 99	21.7	III 98	-18.6	800-432-7856
22.5	27.3	24.2	17.0	14.3	3 3 1 2	Average	2	3	36	40	Microsoft (5)	Average	IV 98	23.2	III 98	-12.1	800-999-0124
9.5	15.7	13.4	NA	NA	3 3 3	Low	0	4	31	29	IBM (2)	Very low	IV 98	11.3	III 98	-7.2	800-433-6884
25.1	27.9	24.8	NA	NA	1 1	Average	6	2	39	41	Berkshire Hathaway Cl. B (3)	Average	IV 98	26.0	III 98	-14.4	800-433-6884
10.0	18.6	14.7	13.0	9.9	3 3 2 3	Average	1	3	26	27	IBM (3)	Average	IV 98	16.7	III 99	-11.1	800-433-6884
8.5	16.0	14.5	NA	NA	2 1 4	Very low	6	3	22	26	Southwest Air (3)	Average	II 99	14.7	III 99	-14.7	800-258-3030
9.9	14.4	13.1	NA	NA	2 3 3	Low	3	99	23	22	Nintendo (4)	Average	IV 98	15.5	III 98	-18.4	800-236-4479
17.1	24.0	22.1	NA	NA	1 3	High	3	17	24	20	Bell Atlantic (4)	Average	II 97	17.2	III 98	-17.5	888-221-4227
33.5	30.2	28.3	NA	NA	2 1	Average	7	53	42	49	Cisco Systems (4)	Low	IV 99	43.3	III 98	-16.0	888-233-4339
41.6	39.2	35.3	23.0	20.1	1 4 1 1	Low	9	12	49	72	Dell Computer (10)	High	IV 99	31.8	III 98	-6.4	888-233-4339
7.3	14.9	11.8	11.6	8.8	2 3 3 3	Low	10	20	23	10	US West (2)	Very low	IV 98	8.2	III 98	-4.9	800-421-4120
29.2	NA	NA	NA	NA	1		3	1	38	51	Microsoft (8)			NA		NA	800-334-2292
119.4	NA	NA	NA	NA	1	Average	NA	3	51	33	NTL (5)			NA		NA	888-386-3999
15.5	20.9	18.0	NA	NA	3 2	High	5	3	38	14	General Electric (2)	Very low	IV 98	13.7	III 98	-6.6	800-525-8085
30.3	31.4	25.9	19.8	15.7	2 3 2 1	High	0	2	46	36	America Online (6)	Average	IV 99	31.2	III 98	-5.9	800-525-8085
35.1	33.1	29.5	24.1	20.8	1 1 2 1		6	4	40	36	Harrah's Entertainment (2)	Average	IV 99	38.8	III 98	-17.8	800-525-8085
14.5	19.3	16.3	15.0	12.2	1 3 2 3	Average	4	3	33	1	General Electric (3)	Low	II 97	13.3	III 98	-7.4	800-525-8085
25.2	26.7	23.5	14.8	13.0	4 4 2 1	High	1	98	43	38	Nokia (3)	Average	IV 99	44.0	III 98	-17.7	800-525-8085
15.5	24.7	21.6	21.3	18.5	1 2 1 3	Average	7	NA	25	13	Citigroup (6)	High	IV 98	19.9	III 98	-18.2	800-525-8085
16.2	24.8	20.9	19.5	17.1	1 4 1 2	Average	5	12	39	17	Johnson & Johnson (6)	Average	III 95	19.5	II 99	-5.8	800-525-8085
37.1	28.0	25.3	22.2	19.6	1 1 4 1	Low	8	14	36	48	AT&T Liberty Media Cl. A (8)	Average	IV 99	25.6	III 98	-12.6	800-525-8085
29.2	29.1	25.2	NA	NA	1 1 1	Very high	11	7	40	31	Digital Microwave (2)	High	IV 99	46.7	III 98	-16.9	800-525-8085
63.6	46.2	43.7	NA	NA	2 1	Average	6	19	52	42	EchoStar Comms. Cl. A (3)	Average	IV 99	62.2	III 98	-21.7	800-525-8085
10.4	15.3	13.8	12.4	10.7	2 3 3 3	Very low	8	7	22	11	IBM (1)	Very low	II 97	11.9	III 99	-8.4	800-525-8085
12.1	18.2	16.3	13.5	11.4	2 3 2 3	Average	3	5	28	29	Sun Microsystems (3)	Average	IV 98	16.7	III 98	-11.7	800-525-8085
20.2	23.7	21.1	16.0	13.8	3 3 2 2	Low	15	12	33	52	Philip Morris (2)	Low	IV 98	17.3	III 98	-7.4	800-421-4120
28.8	28.7	27.0	NA	NA	1 1	Very low	7	NA	41	77	General Electric (4)	Low	IV 98	24.8	III 98	-6.0	800-748-8500
16.5	20.2	17.6	13.7	10.9	3 3 3 2	Average	3	24	37	30	Cisco Systems (5)	Average	IV 99	22.8	III 98	-17.0	800-456-5111
12.0	14.1	13.4	11.8	10.9	4 1 3 3	Very low	4	100	27	24	Richemont Cl. A (Unit) (3)	Average	IV 98	16.4	III 98	-15.7	800-456-5111
15.1	18.0	16.1	NA	NA	3 3	Average	2	22	33	18	Microsoft (2)	Very low	IV 98	13.4	III 98	-6.2	800-521-5411
17.5	24.1	19.5	17.0	13.3	1 3 1 2	Average	3	4	29	30	Monsanto (3)	Average	IV 98	21.3	III 98	-11.2	800-521-5411
16.2	21.6	18.5	14.6	12.2	4 1 3 2	Average	4	4	26	17	Mueller Industries (1)	High	IV 99	34.7	III 98	-21.6	800-521-5411
NA	NA	NA	NA	NA	1	High	3	5	35	26	Education Mgmt. (2)			NA		NA	800-521-5411
23.5	23.7	21.1	NA	NA	3 1	Average	2	7	41	18	Viacom Cl. B (5)	Very low	IV 98	18.8	III 98	-4.5	800-525-8983
47.4	37.0	34.5	NA	NA	4 1	High	2	8	58	47	Paychex (6)	High	IV 99	62.8	III 98	-14.6	800-525-8983
35.1	NA	NA	NA	NA	1	High	2	8	40	26	Bank of New York (4)			NA		NA	800-525-8983
32.8	31.4	28.1	20.6	18.2	1 3 2 1	Average	6	5	47	51	Sun Microsystems (6)	Low	IV 98	28.4	III 98	-11.0	800-525-8983
NA	NA	NA	NA	NA			NA	18	39	NA	QLT Phototherapeutics (11)			NA		NA	800-525-8983
NA	NA	NA	NA	NA			NA	23	57	NA	Sun Microsystems (4)			NA		NA	800-525-8983
37.7	36.4	33.2	NA	NA	4 1 1	Average	14	7	47	41	Cisco Systems (4)	Average	IV 99	29.2	III 98	-9.0	800-525-8983
49.7	41.6	37.2	NA	NA	2 1	High	4	13	51	45	Nokia Cl. A ADR (7)	High	IV 99	49.5	III 98	-6.9	800-525-8983
57.4	NA	NA	NA	NA	1	High	17	16	50	47	Nokia Cl. A ADR (5)			NA		NA	800-525-8983
36.1	32.0	31.4	NA	NA	1 1	High	5	91	44	51	NTT Mobile Comms. (6)	Low	IV 99	60.6	III 98	-19.6	800-525-8983
40.9	NA	NA	NA	NA	1	High	1	15	36	45	Viacom Cl. B (7)			NA		NA	800-525-8983
52.4	45.2	40.8	26.9	24.6	1 4 1 1	Average	10	16	54	49	America Online (7)	Average	IV 99	38.4	II 99	-4.3	800-525-8983
46.7	36.7	32.2	24.1	21.0	1 3 4 1	Average	25	8	40	76	Enzon (4)	High	IV 99	91.2	III 98	-14.1	800-525-8983
34.5	30.9	29.4	NA	NA	1 2 1	Average	4	63	47	46	NTT Mobile Comms. (5)	Low	IV 99	42.1	III 98	-16.1	800-525-8983
30.8	13.7	12.5	6.4	4.9	4 1 4 1	Average	5	100	48	36	Benesse (5)	Very high	III 99	29.5	IV 97	-18.1	800-535-2726
10.2	18.8	16.8	19.0	17.9	1 1 2 3	Average	12	10	35	43	Cendant (10)	High	IV 99	35.6	III 98	-18.7	800-237-0132
20.1	25.1	21.7	16.0	13.7	1 4 1 1	High	6	2	40	29	General Electric (3)	Low	IV 98	19.2	III 98	-13.0	800-621-1048
26.6	24.7	23.1	NA	NA	3 3 1	Low	6	45	40	69	VISX (10)	Average	IV 99	41.5	III 98	-16.6	800-621-1048
19.9	22.9	18.8	16.4	13.7	1 4 3 2	High	1	3	45	37	Microsoft (5)	High	IV 99	29.1	III 98	-22.2	800-621-1048
16.3	17.1	15.2	10.7	8.9	4 3 4 4	High	3	98	30	30	Telecom Italia (3)	Average	IV 99	30.0	III 98	-17.9	800-621-1048
28.4	30.0	27.5	NA	NA	4 2 1	Low	NA	NA	NA	40	NA	Low	IV 99	37.9	III 98	-16.8	800-621-1048

DATA MORNINGSTAR INC. CHICAGO, IL

12:46:03

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Marconi

MUTUAL FUND SCOREBOARD

FUND	OVERALL RATING (COMPARES RISK-ADJUSTED PERFORMANCE OF EACH FUND AGAINST ALL FUNDS)	CATEGORY	RATING (COMPARES RISK-ADJUSTED PERFORMANCE OF FUND WITHIN CATEGORY)	SIZE ASSETS $MIL.	SIZE % CHG. 1998-99	FEES SALES CHARGE (%)	FEES EXPENSE RATIO (%)	1999 RETURNS (%) PRE-TAX	1999 RETURNS (%) AFTER-TAX	YIS
KEMPER SMALL CAP EQUITY A	D	Small-cap Growth	C	590.1	–11	5.75	1.01	33.6	32.4	0
KEMPER SMALL CAP VALUE A	D	Small-cap Value	C–	299.6	–40	5.75	1.42	0.7	0.7	0
KEMPER TECHNOLOGY A	C	Technology	C	2601.1	91	5.75	0.92	114.3	111.1	0
KEMPER TOTAL RETURN A	B	Domestic Hybrid	C	2918.5	12	5.75	1.01	14.6	12.7	2
KEMPER VALUE 5	B	Large-cap Value	B	401.7	–26	No load	1.23	4.0	3.0	0
KEMPER-DREMAN HIGH RET. EQ. A	C	Large-cap Value	D	2052.0	–18	5.75	1.19	–13.2	–15.4	2
KOPP EMERGING GROWTH A		Small-cap Growth		468.2	54	3.50	1.50†	148.2	148.2	0
LEGG MASON AMERICAN LEADING COS. PRIM.	C	Large-cap Blend	D	332.8	39	No load	1.93†	5.3	4.9	0
LEGG MASON INTL. EQUITY PRIMARY		Foreign		265.3	3	No load	2.14†	20.6	18.9	0
LEGG MASON SPECIAL INVMNT. PRIMARY	C	Mid-cap Blend	C	2422.6	40	No load	1.84†	35.5	30.2	0
LEGG MASON TOTAL RETURN PRIMARY	C	Mid-cap Value	C	492.2	–23	No load	1.87†	–6.6	–8.1	1
LEGG MASON VALUE PRIMARY	A	Large-cap Value	A	13564.7	68	No load	1.69†	26.7	25.8	0
LEXINGTON CORPORATE LEADERS	B	Large-cap Value	B+	454.7	–6	No load	0.65	13.7	12.6	3
LIBERTY-COLONIAL A (ttt)	B	Domestic Hybrid	C	943.5	–5	5.75	1.12†	8.7	5.7	1
LIBERTY-COLONIAL SEL. VALUE A (uuu)	C	Mid-cap Blend	B	407.1	–3	5.75	1.32†	9.1	6.9	0
LIBERTY-COLONIAL SMALL CAP VALUE B (vvv)	D	Small-cap Blend	C–	267.8	–23	5.00**	2.24†	3.4	3.4	0
LIBERTY-COLONIAL U.S. GR. & INC. B (www)	C	Large-cap Blend	D	907.4	16	5.00**	2.16†	10.5	8.9	0
LIBERTY-COLONIAL UTILITIES B (xxx)	B+	Utilities	B	733.6	–6	5.00**	1.94†	12.5	10.5	1
LIBERTY-NEWPORT TIGER B (yyy)		Pacific/Asia ex-Japan Stock		361.8	29	5.00**	2.53†	72.2	72.2	0
LIBERTY-STEINROE ADV. GRTH. STK. B (zzz)		Large-cap Growth		383.2	264	5.00**	2.10†	34.9	34.9	0
LIBERTY-STEINROE ADV. TAX-MGD. B (aaaa)		Large-cap Blend		319.9	125	5.00**	NA	27.2	27.2	0
LINDNER ASSET ALLOCATION INV. (bbbb)	C	Domestic Hybrid	F	639.4	–45	2.00*	0.61	10.0	7.6	6
LINDNER LARGE-CAP INV. (cccc)	D	Small-cap Value	D	398.2	–35	2.00*	0.57	11.3	9.8	1
LONGLEAF PARTNERS	C	Mid-cap Blend	C	3630.7	–2	No load‡	0.93	2.2	–1.7	1
LONGLEAF PARTNERS INTERNATIONAL		Foreign		294.1	292	No load	NA	24.4	23.2	0
LONGLEAF PARTNERS REALTY		Real Estate		641.4	–17	No load	1.17	–10.5	–11.2	2
LONGLEAF PARTNERS SMALL-CAP	B	Small-cap Value	A	1431.1	6	No load‡	1.01	4.1	1.5	0
LOOMIS SAYLES SMALL CAP VALUE INS.	C–	Small-cap Blend	C	300.7	–13	No load	0.92	0.4	–0.3	0
LORD ABBETT AFFILIATED A	B	Large-cap Value	B	9268.2	8	5.75	0.63†	16.9	13.9	1
LORD ABBETT DEVELOPING GROWTH A	C–	Small-cap Growth	B	1504.0	82	5.75‡	0.98†	38.2	37.0	0
LORD ABBETT MID-CAP VALUE A	C–	Mid-cap Value	C	337.4	–8	5.75	1.16†	4.2	3.2	0
MAINSTAY CAPITAL APPREC. B	C	Large-cap Growth	C–	3486.5	27	5.00**	1.79†	23.9	22.3	0
MAINSTAY EQUITY INDEX A	B+	Large-cap Blend	B+	1254.0	57	3.00	0.96†	23.1	22.4	0
MAINSTAY TOTAL RETURN B	B+	Domestic Hybrid	C	1678.7	13	5.00**	1.91†	15.6	14.2	0
MAINSTAY VALUE B	C–	Large-cap Value	D	1012.8	–14	5.00**	1.84†	7.5	7.1	0
MAIRS & POWER GROWTH	B	Mid-cap Blend	B+	546.8	–1	No load	0.82	7.2	5.7	1
MANAGERS INTL. EQUITY	C	Foreign	B+	656.7	19	No load	1.41	25.3	24.1	0
MANAGERS SPECIAL EQUITY	C	Small-cap Growth	B+	1288.8	35	No load	1.34	53.9	52.7	0
MARSHALL EQUITY-INCOME Y	C	Large-cap Value	C	520.4	–3	No load	1.17	1.7	–1.0	1
MARSHALL INTERNATIONAL STOCK Y	C	Foreign	B	279.5	19	No load	1.50	54.5	51.9	0
MARSHALL LARGE-CAP GROWTH & INCOME Y	B	Large-cap Blend	C	431.8	20	No load	1.20	18.1	16.7	0
MARSHALL MID-CAP GROWTH Y	C–	Mid-cap Growth	C	359.8	37	No load	1.21	61.1	58.1	0
MARSICO FOCUS		Large-cap Growth		2685.0	123	No load	1.56†	55.7	55.5	0
MARSICO GROWTH & INCOME		Large-cap Growth		885.0	137	No load	1.51†	52.9	52.8	0
MAS BALANCED INSTL.	A	Domestic Hybrid	B+	358.3	–14	No load	0.57	16.3	11.5	3
MAS EQUITY INSTL.	B	Large-cap Value	B+	693.9	–24	No load	0.59	28.8	20.3	0
MAS MID CAP GROWTH INSTL.	C	Mid-cap Growth	B+	1046.9	85	No load	0.60	68.2	62.3	0
MAS MID CAP VALUE INSTL.	B	Mid-cap Blend	B+	874.1	61	No load	0.88	19.8	15.6	0
MAS SMALL CAP VALUE INSTL.	C–	Small-cap Blend	B	933.5	13	No load	0.86	26.0	23.2	0
MAS VALUE INSTL.	C–	Mid-cap Value	C–	974.9	–54	No load	0.59	–2.1	–5.2	2
MASTERS' SELECT EQUITY		Large-cap Blend		423.6	4	No load	1.38	26.5	20.9	0
MERCURY PAN-EUROPEAN GROWTH B		Europe		293.9	3	4.00**	NA†	15.3	14.9	0
MERGER	A	Domestic Hybrid	A	660.3	91	No load‡	1.33†	17.4	14.6	0
MERRILL LYNCH BASIC VALUE B	B	Large-cap Value	B	4364.4	–8	4.00**	1.56†	10.0	7.8	0
MERRILL LYNCH CAPITAL B	C	Domestic Hybrid	D	3742.4	–31	4.00**	1.59†	3.5	1.1	1
MERRILL LYNCH EUROFUND B	B	Europe	C–	707.4	–15	4.00**	2.03†	14.1	8.7	1
MERRILL LYNCH FUNDAMENTAL GROWTH B	A	Large-cap Growth	B+	2283.8	106	4.00**	1.88†	35.0	32.6	0
MERRILL LYNCH GLOBAL ALLOCATION B	B+	International Hybrid	B	4510.4	–27	4.00**	1.86†	26.5	22.1	4
MERRILL LYNCH GLOBAL GROWTH B		World		1926.8	16	4.00**	NA	40.7	39.1	0
MERRILL LYNCH GLOBAL TECHNOLOGY B		Technology		709.3	42	4.00**	NA	86.7	86.7	0
MERRILL LYNCH GLOBAL UTILITIES B	B	Utilities	C	299.9	–11	4.00**	1.59†	12.1	10.8	0
MERRILL LYNCH GLOBAL VALUE B		World		1717.5	–14	4.00**	1.92†	9.3	8.6	0
MERRILL LYNCH GROWTH B	D	Large-cap Growth	F	1278.0	–42	4.00**	1.83†	26.2	26.2	0
MERRILL LYNCH PACIFIC B	D	Diversified Pacific/Asia	A	754.8	54	4.00**	1.92†	85.9	85.9	0
MERRILL LYNCH S&P 500 INDEX D		Large-cap Blend		784.0	80	No load	0.64†	20.2	19.5	0
MERRILL LYNCH SPECIAL VALUE B	D	Small-cap Blend	C	431.4	–8	4.00**	2.10†	31.9	29.2	0
MFS CAPITAL OPPORTUNITIES A	A	Large-cap Blend	A	1763.3	73	5.75	1.23†	47.7	42.0	0
MFS EMERGING GROWTH B	C–	Large-cap Growth	F	8425.3	22	4.00**	1.91†	48.9	48.8	0
MFS GLOBAL EQUITY A	C	World	B	408.2	36	5.75	1.60†	20.9	18.6	0
MFS GLOBAL GROWTH B	C	World	C	377.7	31	4.00**	2.24†	63.1	60.8	0

*Includes redemption fee. **Includes deferred sales charge. †12(b)-1 plan in effect. ‡Not currently accepting new accounts. §Less than 0.5% of assets. NA=Not available. NM=Not mean (ttt) Formerly Colonial A. (uuu) Formerly Colonial Select Value A. (vvv) Formerly Colonial Small Cap Value B. (www) Formerly Colonial U.S. Growth and Income B. (xxx) Formerly Colonia ities B. (yyy) Formerly Newport Tiger B. (zzz) Formerly Stein Roe Adv Growth Stock B. (aaaa) Formerly Stein Roe Adv Tax-Managed Growth B. (bbbb) Formerly Lindner Dividend Inv. (ccc merly Lindner Growth Inv

GE ANNUAL TOTAL RETURNS (%)					HISTORY	PORTFOLIO DATA						RISK					TELEPHONE
EARS AFTERTAX	5 YEARS PRETAX	5 YEARS AFTERTAX	10 YEARS PRETAX	10 YEARS AFTERTAX	RESULTS VS. ALL FUNDS	TURNOVER	CASH %	FOREIGN %	P-E RATIO	UNTAXED GAINS (%)	LARGEST HOLDING COMPANY (% ASSETS)	LEVEL	BEST QTR	BEST %RET	WORST QTR	WORST %RET	
14.2	18.5	15.6	15.5	12.8	1 2 2 3	High	6	6	33	39	Comverse Technologies (4)	High	IV 99	32.1	III 98	-22.9	800-621-1048
1.5	14.4	13.5	NA	NA	3 1 4	Average	7	3	19	-12	Young Broadcasting Cl. A (2)	High	II 95	16.4	III 98	-24.1	800-621-1048
45.6	41.5	36.9	26.0	21.8	1 1 1 1	High	5	5	51	66	Lucent Technologies (4)	High	IV 99	57.8	IV 97	-13.8	800-621-1048
13.5	18.3	14.7	13.4	10.5	1 4 3 3	Average	1	2	40	23	General Electric (2)	Low	II 97	13.1	III 98	-6.7	800-621-1048
14.9	20.3	18.4	NA	NA	1 3	Average	14	6	26	15	Bell Atlantic (4)	Low	IV 98	17.1	III 98	-15.3	800-621-1048
6.5	19.4	17.4	15.5	14.0	1 3 1 4	Very low	6	1	22	0	S&P 500 Index (Fut.) (11)	Average	IV 98	14.2	III 99	-12.7	800-621-1048
NA	NA	NA	NA	NA		Low	0	1	54	50	SDL (12)			NA		NA	612-841-0400
15.1	20.1	18.9	NA	NA	1 1	Average	1	4	29	22	IBM (5)	Average	IV 98	24.0	III 99	-14.7	800-577-8589
9.0	NA	NA	NA	NA	4	Average	2	100	33	12	Total Fina Cl. B (2)			NA		NA	800-577-8589
24.1	26.3	24.1	18.8	17.0	1 2 2 1	Average	6	10	37	28	America Online (12)	High	IV 98	40.1	III 98	-20.5	800-577-8589
6.5	17.0	15.0	12.0	10.3	3 4 1 4	Low	4	10	17	14	IBM (7)	Average	III 97	13.8	III 98	-15.8	800-577-8589
35.9	38.0	36.4	21.6	20.5	4 2 1 1	Low	5	12	35	48	America Online (15)	Average	IV 98	35.9	III 98	-11.6	800-577-8589
13.3	21.3	19.4	14.4	12.1	3 2 1 3		0	1	32	33	ExxonMobil (11)	Low	II 97	13.5	III 98	-9.5	800-526-0056
12.9	18.4	15.4	13.1	10.6	3 3 2 3	Average	3	4	33	33	Bristol-Myers Squibb (2)	Low	II 97	15.6	III 98	-7.5	800-426-3750
16.6	22.5	19.9	14.7	12.1	3 3 1 2	Low	7	NA	27	33	Applied Micro Circuits (2)	Average	IV 98	19.7	III 98	-15.6	800-426-3750
5.3	13.8	12.8	NA	NA	2 4	Average	4	1	23	8	CEC Entertainment (2)	High	IV 98	18.5	III 98	-26.2	800-426-3750
18.9	22.0	19.6	NA	NA	3 2 2	Average	7	3	33	29	Microsoft (4)	Average	IV 98	21.4	III 98	-14.2	800-426-3750
18.7	19.6	18.1	NA	NA	4 3 2	Low	2	18	28	41	GTE (5)	Low	IV 97	14.7	I 99	-5.6	800-426-3750
-0.6	NA	NA	NA	NA	4	Very low	3	100	32	-10	DBS Group Holdings (8)			NA		NA	800-426-3750
NA	NA	NA	NA	NA		Low	2	NA	46	21	Cisco Systems (5)			NA		NA	800-426-3750
23.7	NA	NA	NA	NA	2		0	3	40	NA	General Electric (3)			NA		NA	800-426-3750
3.3	10.3	7.3	10.1	7.1	1 3 4 4	Low	5	9	26	-8	Credit Lyonnais Cap. ADR (2)	Low	IV 99	8.9	III 98	-7.9	314-727-5305
-2.1	8.1	5.1	8.1	5.5	3 2 3 4	Average	6	7	30	18	Alliant Tech. Systems (2)	High	IV 99	16.7	III 98	-19.5	314-727-5305
10.6	18.2	14.9	15.8	13.0	3 1 2 3	Low	2	27	17	-3	Waste Mgmt. (15)	Average	IV 98	18.5	III 98	-18.4	800-445-9469
NA	NA	NA	NA	NA			21	89	27	9	Brierley Investments (Reg.) (10)			NA		NA	800-445-9469
-0.7	NA	NA	NA	NA	4	Low	1	11	17	-17	Promus Hotel (11)			NA		NA	800-445-9469
12.5	18.6	16.1	10.7	9.1	4 1 2 3	Average	8	13	15	2	Promus Hotel (9)	Low	IV 98	14.5	III 98	-13.4	800-445-9469
5.8	16.6	13.7	NA	NA	1 1 4	Average	6	0	21	-3	Viad (1)	High	IV 98	18.1	III 98	-18.6	800-633-3330
16.0	21.5	18.2	15.0	11.8	3 2 1 3	Average	2	2	31	7	Mobil (3)	Low	IV 98	17.1	III 98	-11.6	800-874-3733
23.7	28.3	24.8	19.4	16.8	1 1 1 1	Low	2	4	34	16	Security First Tech. (2)	High	IV 98	28.3	III 98	-22.0	800-874-3733
8.2	15.8	12.4	12.2	9.3	2 3 2 4	Average	3	2	22	-5	Dynegy (4)	Average	II 99	17.6	III 98	-17.3	800-874-3733
27.1	27.6	26.8	22.2	20.8	1 1 2 1	Low	3	1	45	54	Sun Microsystems (4)	Average	IV 98	26.9	III 98	-8.3	800-624-6782
27.0	28.1	26.9	NA	NA	4 1 1	Very low	2	3	37	34	Microsoft (4)	Low	IV 98	21.2	III 98	-10.1	800-624-6782
17.7	19.8	18.3	14.8	13.3	1 3 3 2	High	4	1	42	42	Sun Microsystems (3)	Low	IV 98	16.9	III 98	-4.3	800-624-6782
4.3	13.4	11.2	12.9	10.7	1 2 2 4	Average	1	2	24	4	Union Pacific Resources Grp. (3)	Average	II 99	13.2	III 98	-16.6	800-624-6782
13.7	23.3	22.1	18.3	17.0	1 2 1 3	Very low	5	NA	26	34	Medtronic (5)	Average	II 97	19.0	III 98	-13.2	800-304-7404
15.2	15.8	14.3	12.6	11.4	4 1 4 3	Average	3	100	30	27	Sony (2)	Low	IV 98	13.9	III 98	-14.3	800-835-3879
23.6	26.3	24.4	18.4	16.1	3 1 2 1	Average	7	2	36	41	Emmis Broadcasting Cl. A (2)	Average	IV 99	35.8	III 98	-21.0	800-835-3879
10.2	18.4	15.9	NA	NA	1 3	Average	8	6	26	26	S&P 500 Index (Fut.) (7)	Low	IV 98	11.7	III 99	-8.6	800-236-8560
19.6	18.7	17.6	NA	NA	3 2	Very high	2	97	42	40	STMicroelectronics (3)	Average	IV 99	40.5	III 98	-19.1	800-236-8560
21.8	23.5	20.9	NA	NA	2 2	Low	7	5	37	42	Microsoft (4)	Average	IV 98	22.7	III 98	-10.1	800-236-8560
29.1	29.9	27.0	NA	NA	2 1	High	5	1	44	49	JDS Uniphase (5)	High	IV 99	41.0	III 98	-22.9	800-236-8560
NA	NA	NA	NA	NA			11	3	45	27	Qualcomm (9)			NA		NA	888-860-8686
NA	NA	NA	NA	NA			10	4	44	30	Qualcomm (8)			NA		NA	888-860-8688
13.0	18.7	14.7	NA	NA	3 2	High	5	7	33	-2	Microsoft (3)	Very low	IV 98	12.2	III 98	-6.8	800-354-8185
17.2	25.5	18.8	17.5	13.0	1 3 1 2	Average	0	6	33	12	Microsoft (5)	Average	IV 98	21.3	III 98	-14.4	800-354-8185
40.5	37.9	32.4	NA	NA	2 3 1	High	4	4	41	45	Qualcomm (2)	High	IV 99	39.2	III 98	-19.1	800-354-8185
21.6	29.4	25.9	NA	NA	4 2	Very high	5	4	26	17	Valassis Comms. (3)	Average	IV 98	22.5	III 98	-13.8	800-354-8185
14.3	21.6	17.4	18.6	15.7	1 1 1 3	High	9	4	25	12	Bally Total Fitness Hldg. (2)	Average	III 97	18.3	III 98	-18.3	800-354-8185
2.2	15.8	12.2	13.8	9.8	1 2 1 4	Average	11	1	17	-14	General Motors (4)	Average	II 99	15.3	III 98	-19.1	800-354-8185
20.4	NA	NA	NA	NA	2	High	3	4	32	18	Pioneer Natural Res. Canada (4)			NA		NA	800-960-0188
NA	NA	NA	NA	NA			NA	100	31	NA	Novartis (Reg.) (3)			NA		NA	888-763-2260
8.7	11.6	9.0	10.5	8.2	3 2 4 3	Very high	45	5	36	11	Republic New York (8)	Very low	IV 98	7.3	III 98	-6.0	800-343-8959
13.9	19.0	17.1	13.2	11.4	3 2 2 3	Low	10	11	27	38	IBM (4)	Low	II 97	14.2	III 98	-11.5	800-637-3863
7.4	13.9	11.3	10.7	8.4	3 3 3 4	Low	4	15	29	24	Kansas City Southern Inds. (3)	Low	IV 98	10.8	III 98	-11.7	800-637-3863
16.8	19.4	14.2	13.0	10.0	4 2 2 2	Average	6	100	21	4	Telecom Italia (RNC) (4)	Low	IV 98	22.6	III 98	-18.7	800-637-3863
30.5	29.7	27.4	NA	NA	1 1	Low	6	5	36	27	General Electric (4)	Low	IV 98	27.1	III 98	-12.8	800-637-3863
8.2	14.4	11.1	12.5	9.6	1 3 3 3	Average	2	48	26	13	Nikkei 225 Index (Fut.) (3)	Very low	II 99	12.2	III 98	-13.2	800-637-3863
NA	NA	NA	NA	NA			NA	49	32	NA	Cisco Systems (4)			NA		NA	800-637-3863
NA	NA	NA	NA	NA			5	7	51	NA	America Online (6)			NA		NA	800-637-3863
17.8	19.1	17.1	NA	NA	3 3 2	Very low	7	57	26	52	Telefonica (6)	Low	IV 99	17.9	I 99	-4.7	800-637-3863
17.3	NA	NA	NA	NA	2	Average	3	43	32	15	Berkshire Hathaway Cl. A (5)			NA		NA	609-282-2800
3.3	14.3	12.8	13.1	11.4	4 1 1 4	Low	15	15	44	24	Safra Republic Hldgs. (6)	High	IV 99	24.2	III 98	-19.5	800-637-3863
20.9	15.8	14.0	10.3	8.6	4 3 4 2	Very low	0	100	36	30	Murata Manufacturing (7)	High	IV 99	36.2	IV 97	-19.0	800-637-3863
NA	NA	NA	NA	NA	2	Low	3	2	34	20	Microsoft (3)			NA		NA	609-282-2800
12.7	17.8	14.8	12.9	10.8	4 2 2 3	Average	13	4	27	3	DSP Comms. (3)	High	II 99	27.3	III 98	-26.0	800-637-3863
29.8	31.9	28.3	20.2	16.9	4 1 1 1	High	7	14	37	35	Tyco International (5)	Low	IV 99	28.7	III 98	-14.1	800-637-2929
29.9	28.6	28.4	24.9	24.5	1 1 2 1	Very low	2	2	47	57	Cisco Systems (11)	High	IV 99	35.6	III 98	-18.1	800-637-2929
16.6	18.7	16.6	NA	NA	3 2	Average	7	57	33	28	BMC Software (4)	Low	IV 98	19.2	III 98	-13.5	800-637-2929
24.8	21.6	19.4	NA	NA	4 1	High	2	53	42	42	Cisco Systems (3)	Average	IV 99	44.4	III 98	-17.0	800-637-2929

DATA: MORNINGSTAR, INC., CHICAGO, IL.

MUTUAL FUND SCOREBOARD

FUND	OVERALL RATING (COMPARES RISK-ADJUSTED PERFORMANCE OF EACH FUND AGAINST ALL FUNDS)	CATEGORY	RATING (COMPARES RISK-ADJUSTED PERFORMANCE OF FUND WITHIN CATEGORY)	SIZE ASSETS $MIL.	% CHG. 1998-99	FEES SALES CHARGE (%)	EXPENSE RATIO (%)	1999 RETURNS (%) PRE-TAX	AFTER-TAX
MFS GROWTH OPPORTUNITIES A	C	Large-cap Growth	D	1157.6	4	5.75	0.81†	32.8	30.1
MFS LARGE CAP GROWTH B	B+	Large-cap Growth	B+	492.7	4	4.00**	1.99†	34.7	32.0
MFS MANAGED SECTORS A	C	Large-cap Growth	C–	414.1	38	5.75	1.36†	84.6	80.4
MFS MASS. INVESTORS A	B+	Large-cap Blend	B	8208.4	15	5.75	0.73†	7.0	6.2
MFS MASS. INVESTORS GROWTH A	A	Large-cap Growth	A	6828.1	65	5.75	0.79†	38.8	36.3
MFS NEW DISCOVERY A		Small-cap Growth		334.3	163	5.75	1.51†	59.3	57.9
MFS RESEARCH A	B	Large-cap Blend	C–	3328.1	4	5.75	0.91†	23.8	22.0
MFS STRATEGIC GROWTH B		Large-cap Growth		833.2	131	4.00**	2.03†	42.9	41.1
MFS TOTAL RETURN A	B+	Domestic Hybrid	B	3699.0	–3	4.75	0.90†	2.3	–0.1
MFS UTILITIES B	A	Utilities	A	735.9	66	4.00**	1.80†	30.7	27.0
MONTGOMERY EMERGING MARKETS R	F	Diversified Emerging Mkts.	D	317.2	–6	No load	2.05	63.2	63.2
MONTGOMERY GLOBAL COMMUN. R	B	Communications	C–	477.9	89	No load	1.68	104.0	96.0
MONTGOMERY GLOBAL LONG-SHORT R (dddd)		International Hybrid		346.1	589	2.00*‡	2.35†	135.1	130.3
MONTGOMERY GROWTH R	C–	Mid-cap Blend	C	551.6	–47	No load	1.35	20.6	17.2
MONTGOMERY U.S. EMERG. GROWTH R	C–	Small-cap Growth	B	273.9	–33	No load	1.66	18.8	16.0
MSDW AMERICAN OPPORTUNITY B (eeee)	B+	Large-cap Growth	B	8662.3	51	5.00**	1.39†	46.1	41.3
MSDW CAPITAL GROWTH SECS. B	C	Large-cap Growth	D	487.1	–3	5.00**	1.84†	30.1	21.6
MSDW COMP. EDGE BEST IDEAS B		World		1708.7	–6	5.00**	1.86†	28.3	28.3
MSDW DEVELOPING GROWTH B	C–	Small-cap Growth	B	978.0	38	5.00**	1.70†	99.0	91.8
MSDW DIVIDEND GROWTH SECS. B	C	Large-cap Value	C	17070.8	–8	5.00**	1.11†	–1.1	–2.2
MSDW EQUITY B		Large-cap Blend		322.3	44	5.00**	NA	26.8	26.6
MSDW EUROPEAN GROWTH B	B+	Europe	B+	2237.0	0	5.00**	2.10†	27.7	24.6
MSDW FINANCIAL SERVICES B		Financial		433.9	3	5.00**	NA	12.7	4.6
MSDW GLOBAL DIV. GROWTH SECS. B	C	World	C	3307.1	–7	5.00**	1.78†	13.6	10.4
MSDW GLOBAL UTILITIES B	B+	Utilities	B	842.5	62	5.00**	1.71†	24.9	22.0
MSDW GROWTH B	C	Large-cap Blend	D	1049.6	21	5.00**	1.60†	39.6	36.6
MSDW HEALTH SCIENCES B	D	Health	C–	294.1	–20	5.00**	2.27†	14.1	12.3
MSDW INCOME BUILDER B		Domestic Hybrid		331.5	–23	5.00**	NA	1.7	–0.2
MSDW INFORMATION B		Technology		1708.1	342	5.00**	1.95†	146.0	133.5
MSDW MARKET LEADER B		Large-cap Blend		267.8	81	5.00**	NA	49.5	48.0
MSDW MID-CAP EQUITY B (ffff)		Mid-cap Growth		1315.0	418	5.00**	2.20†	124.6	123.5
MSDW PACIFIC GROWTH B	F	Diversified Pacific/Asia	F	684.4	61	5.00**	2.65†	68.4	68.3
MSDW S&P 500 INDEX B		Large-cap Blend		1772.1	90	5.00**	1.50†	19.0	19.0
MSDW SMALL CAP GROWTH B (gggg)	C–	Mid-cap Growth	C–	598.2	75	5.00**	2.25†	132.5	129.1
MSDW STRATEGIST B	B+	Domestic Hybrid	C	1874.9	10	5.00**	1.54†	22.0	19.6
MSDW UTILITIES B	B+	Utilities	B	2680.6	–3	5.00**	1.65†	10.1	8.3
MSDW VALUE-ADDED MKT. EQUITY B	C	Large-cap Value	C–	1340.9	–10	5.00**	1.42†	10.9	8.4
MUNDER INDEX 500 A	B+	Large-cap Blend	B+	451.3	83	2.50	0.44†	20.4	19.7
MUNDER NETNET B		Technology		2096.1	NM	5.00**	2.34†	173.6	173.0
MUTUAL BEACON Z	B	Mid-cap Value	B+	3220.1	–20	No load‡	0.76	16.8	14.3
MUTUAL DISCOVERY Z	B+	World	B+	1944.5	–23	No load‡	1.00	26.8	25.6
MUTUAL EUROPEAN Z		Europe		464.1	–4	No load‡	1.05	46.8	43.5
MUTUAL QUALIFIED Z	B	Mid-cap Value	B+	3200.1	–19	No load‡	0.76	13.6	11.2
MUTUAL SHARES Z	B	Mid-cap Value	B+	5601.6	–11	No load‡	0.73	15.0	12.6
NATIONS MARSICO FOCUS EQ. INV. B		Large-cap Growth		638.5	254	5.00**	2.07†	52.0	51.4
NATIONWIDE D	B	Large-cap Blend	C	2429.2	5	4.50‡	0.66	–0.2	–1.8
NATIONWIDE GROWTH D	C	Large-cap Blend	C–	1042.6	2	4.50	0.73	16.6	13.6
NEUBERGER BERMAN FOCUS	C–	Large-cap Value	F	1548.0	9	No load	0.84	26.0	22.8
NEUBERGER BERMAN GENESIS	C–	Small-cap Blend	C	735.9	–38	No load	1.17	4.0	3.9
NEUBERGER BERMAN GUARDIAN	D	Large-cap Value	F	3131.6	–29	No load	0.79	8.5	3.1
NEUBERGER BERMAN MANHATTAN	C–	Mid-cap Growth	C	686.4	9	No load	1.00	50.8	48.5
NEUBERGER BERMAN PARTNERS	C	Large-cap Value	C–	2667.5	–18	No load	0.80	7.8	4.7
NEW ECONOMY	B+	Large-cap Blend	B+	9521.7	46	5.75	0.79†	45.9	42.6
NEW ENGLAND GROWTH A	C	Large-cap Blend	F	1876.1	3	5.75	1.12†	15.2	10.3
NEW ENGLAND GROWTH AND INCOME A (hhhh)	B	Large-cap Value	B	375.6	25	5.75	1.23†	9.5	5.5
NEW ENGLAND STAR ADVISERS B	B	Large-cap Growth	C	635.8	25	5.00**	2.37†	45.6	39.2
NEW PERSPECTIVE	B+	World	B+	28980.0	36	5.75	0.77†	40.1	37.6
NICHOLAS	C	Large-cap Blend	D	5154.2	–11	No load	0.71	1.7	0.2
NICHOLAS II	C–	Mid-cap Growth	C	940.9	–15	No load	0.59	1.2	0.9
NICHOLAS LIMITED EDITION	D	Small-cap Growth	C	278.8	–24	No load	0.85	–3.9	–4.4
NORTHEAST INVESTORS GROWTH	B+	Large-cap Growth	B+	287.3	37	No load	0.94	29.1	28.8
NORTHERN GROWTH EQUITY	B	Large-cap Growth	C	1149.0	93	No load	1.00	23.7	21.5
NORTHERN INTL. GROWTH EQUITY	C–	Foreign	C	499.2	141	No load	1.25	35.2	30.3
NORTHERN MID CAP GROWTH		Mid-cap Growth		296.2	601	No load	1.00	90.2	90.0
NORTHERN SELECT EQUITY	A	Large-cap Growth	A	275.3	67	No load	1.00	54.6	53.4
NORTHERN STOCK INDEX		Large-cap Blend		538.7	281	No load	0.55	20.3	19.9
NORTHERN TECHNOLOGY		Technology		1055.8	363	No load	1.23	134.5	127.0
NUVEEN GROWTH & INCOME STOCK A		Large-cap Value		747.3	5	5.25	1.24†	14.6	13.1
NUVEEN RITTENHOUSE GROWTH B		Large-cap Growth		275.2	86	5.00**	2.10†	13.3	13.2
OAK VALUE	C	Mid-cap Blend	B	469.9	–16	No load	1.10	–3.1	–4.0

*Includes redemption fee. **Includes deferred sales charge. †12(b)-1 plan in effect. ‡Not currently accepting new accounts. §Less than 0.5% of assets. NA=Not available. NM=Not meani
(dddd) Formerly Montgomery Global Long-Short A. (eeee) Formerly MSDW American Value B. (ffff) Formerly TCW/DW Mid-Cap Equity B. (gggg) Formerly TCW/DW Small Cap Growth B. (h
Formerly New England Growth Opportunities A.

GE ANNUAL TOTAL RETURNS (%)					HISTORY	PORTFOLIO DATA						RISK					TELEPHONE
1999	5 YEARS		10 YEARS		RESULTS VS	TURNOVER	CASH	FOREIGN	P-E	UNTAXED	LARGEST HOLDING	LEVEL	BEST		WORST		
FTERTAX	PRETAX	AFTERTAX	PRETAX	AFTERTAX	ALL FUNDS		%	%	RATIO	GAINS (%)	COMPANY (% ASSETS)		QTR	%RET	QTR	%RET	
25.4	28.2	24.6	17.2	14.0	4 3 1 1	Average	3	3	41	47	Microsoft (7)	High	IV 99	30.2	III 98	-13.6	800-637-2929
26.3	28.8	23.8	17.6	14.3	3 4 2 1	Very high	5	5	40	41	Tyco International (5)	Average	IV 99	27.2	III 98	-12.2	800-637-2929
33.8	32.9	27.7	NA	NA	2 1	Very high	2	13	50	47	Tyco International (7)	High	IV 99	58.7	III 98	-19.1	800-637-2929
18.6	24.9	22.5	16.3	12.8	2 3 1 2	Average	7	6	33	21	Microsoft (4)	Low	IV 98	18.6	III 98	-10.9	800-637-2929
38.7	35.3	30.2	21.9	18.0	2 2 1 1	Average	18	6	43	29	Tyco International (5)	Average	IV 99	28.2	III 98	-10.1	800-637-2929
35.9	NA	NA	NA	NA	1	High	5	2	37	30	Gemstar Intl. Group (4)			NA		NA	800-637-2929
21.0	25.9	24.2	18.2	15.8	3 1 1 2	Average	1	8	39	36	Microsoft (5)	Average	IV 98	22.0	III 98	-15.0	800-637-2929
NA	NA	NA	NA	NA	1	High	17	5	43	27	Microsoft (7)			NA		NA	800-637-2929
8.0	15.0	11.5	11.4	8.7	2 3 3 3	High	4	9	24	8	Nisource (3)	Very low	II 97	9.3	III 99	-4.6	800-637-2929
22.1	25.6	22.0	NA	NA	2 1	High	2	24	26	18	GTE (4)	Very low	IV 99	21.8	III 98	-3.8	800-637-2929
-1.1	-0.1	-0.3	NA	NA	1 4 4	Average	0	100	26	-74	Samsung Electronics (4)	Very high	IV 99	35.9	III 98	-24.7	800-572-3863
48.7	35.8	32.5	NA	NA	4 1	High	12	63	41	65	Global TeleSystems Group (4)	High	IV 99	62.5	III 98	-20.2	800-572-3863
NA	NA	NA	NA	NA		Very high	64	50	37	40	Intl. Integration (2)			NA		NA	800-572-3863
12.5	17.8	14.6	NA	NA	2 3	Low	8	10	31	41	Golden West Financial (4)	Average	II 99	17.5	III 98	-19.3	800-572-3863
15.9	20.1	18.4	NA	NA	2 2	Average	7	NA	25	59	Duane Reade (4)	High	IV 99	32.7	III 98	-17.2	800-572-3863
30.8	31.7	26.8	21.6	18.5	1 2 2 1	Very high	3	15	47	30	Microsoft (2)	Average	IV 99	34.9	III 98	-7.3	800-869-6397
18.5	22.6	18.2	NA	NA	4 2 2	Very high	0	7	45	37	General Electric (3)	High	IV 99	25.6	III 98	-15.0	800-869-3863
NA	NA	NA	NA	NA		Average	0	45	41	19	America Online (3)			NA		NA	800-869-6397
31.7	32.2	28.7	21.5	19.6	4 1 2 1	High	6	7	42	62	ANTEC (2)	High	IV 99	59.3	III 98	-20.4	800-869-6397
12.5	18.7	17.6	12.8	11.8	3 4 1 3	Very low	5	7	27	49	IBM (3)	Low	II 97	15.7	III 99	-10.3	800-869-3863
NA	NA	NA	NA	NA			1	7	36	NA	Microsoft (5)			NA		NA	800-869-3863
18.9	23.5	21.0	NA	NA	1 2 2	Average	3	100	33	0	BP Amoco (3)	Low	IV 99	24.9	III 98	-15.8	800-869-3863
NA	NA	NA	NA	NA	2		5	15	30	NA	American Express (5)			NA		NA	800-869-6397
9.4	14.7	12.0	NA	NA	3 3	Average	4	69	25	16	Eastman Kodak (1)	Low	IV 98	16.6	III 98	-12.6	800-869-3863
24.4	21.4	19.8	NA	NA	4 1	Low	14	34	30	34	BellSouth (3)	Low	I 98	19.7	III 98	-5.4	800-869-3863
23.5	25.1	22.2	NA	NA	3 2 1	High	0	0	44	48	Tyco International (7)	Average	IV 98	25.1	III 98	-14.2	800-869-3863
9.7	18.5	15.8	NA	NA	3 2	High	3	15	41	34	MedImmune (6)	High	IV 99	20.5	I 97	-13.5	800-869-3863
6.2	NA	NA	NA	NA	4		2	2	18	NA	GTE (1)			NA		NA	800-869-6397
59.9	NA	NA	NA	NA	1	Very high	7	5	55	42	Cisco Systems (3)			NA		NA	800-869-3863
NA	NA	NA	NA	NA	1		2	8	39	NA	Microsoft (3)			NA		NA	800-869-6397
59.2	NA	NA	NA	NA	1	Average	5	5	49	27	Yahoo (6)			NA		NA	800-869-3863
-2.9	0.1	-0.3	NA	NA	1 4 4	Average	5	99	34	-33	Fujitsu (2)	Very high	IV 98	26.6	IV 97	-28.6	800-869-3863
NA	NA	NA	NA	NA			4	3	36	21	Microsoft (4)			NA		NA	800-869-3863
44.6	41.1	40.7	NA	NA	2 1	Average	2	8	53	61	Citrix Systems (6)	Very high	IV 99	82.3	III 98	-22.1	800-869-3863
15.7	18.5	15.9	13.7	11.7	1 4 3 2	Average	12	3	39	30	Sun Microsystems (2)	Low	IV 99	12.4	III 98	-8.8	800-869-3863
16.7	17.9	15.9	11.6	9.7	3 4 4 2	Very low	4	15	26	4	Enron (3)	Low	IV 97	13.2	III 99	-4.0	800-869-3863
14.2	18.7	17.3	13.3	12.4	3 2 2 3	Very low	0	2	28	51	Sun Microsystems (5)	Average	IV 98	16.5	III 98	-14.1	800-869-3863
25.5	28.0	26.3	NA	NA	1 2	Very low	2	3	37	31	Microsoft (4)	Low	IV 98	21.1	III 98	-10.0	800-438-5789
NA	NA	NA	NA	NA		Low	13	3	56	32	InfoSpace.com (5)			NA		NA	800-438-5789
11.0	17.6	14.5	14.5	12.0	3 1 2 3	Average	14	33	23	32	Canary Wharf Group (3)	Low	IV 98	12.6	III 98	-17.5	800-342-5236
13.2	19.7	17.3	NA	NA	2 3	Average	13	59	24	28	Investor Cl. A (3)	Low	IV 99	14.2	III 98	-19.4	800-342-5236
21.0	NA	NA	NA	NA	2	High	12	98	27	33	Rhone-Poulenc Cl. A (5)			NA		NA	800-342-5236
10.0	17.0	13.7	14.3	11.4	3 1 2 3	Average	13	26	23	31	Investor Cl. A (3)	Low	II 99	13.4	III 98	-17.7	800-342-5236
11.0	17.9	14.4	14.3	11.4	3 1 2 3	Average	17	23	23	31	Investor Cl. A (3)	Low	IV 98	13.3	III 98	-17.0	800-553-3014
NA	NA	NA	NA	NA		High	11	2	47	19	EMC (8)			NA		NA	800-321-7854
20.2	23.9	21.8	15.5	13.3	2 4 1 2	Very low	1	NA	29	47	Warner-Lambert (7)	Low	II 97	18.5	III 99	-11.2	800-848-0920
19.5	22.3	19.4	15.3	13.0	2 3 2 2	Low	2	2	39	50	EMC (7)	Average	II 97	18.3	III 98	-10.7	800-848-0920
18.3	22.9	20.5	16.7	14.2	3 1 1 2	Average	6	NA	28	55	Citigroup (10)	High	IV 98	34.5	III 98	-27.5	800-877-9700
8.9	16.6	15.9	12.7	11.8	3 2 1 4	Low	5	2	23	5	Dallas Semicon. (3)	High	III 97	20.1	III 98	-16.4	800-877-9700
5.3	15.3	12.0	13.6	11.1	1 1 2 4	Average	26	2	28	33	WellPoint Health Networks (3)	High	IV 98	23.1	III 98	-26.2	800-877-9700
27.6	26.7	23.0	17.2	14.0	3 2 2 1	High	5	3	48	48	Citrix Systems (4)	High	IV 99	49.0	III 98	-21.2	800-877-9700
10.5	20.4	16.6	14.7	11.4	3 2 1 3	High	2	10	30	20	CIGNA (3)	Average	IV 98	16.4	III 98	-14.7	800-877-9700
31.5	27.7	25.1	18.7	16.3	3 1 3 1	Low	12	32	39	49	AT&T Liberty Media Cl. A (5)	Low	IV 99	27.2	III 98	-10.8	800-421-4120
17.3	25.9	20.2	17.6	13.4	1 4 1 2	Very high	0	21	34	28	AFLAC (6)	High	IV 98	28.5	III 98	-18.1	800-225-7670
17.3	23.5	18.2	15.6	12.2	2 3 1 2	High	2	3	27	20	Bristol-Myers Squibb (3)	Low	IV 98	19.2	III 98	-12.3	800-225-7670
22.4	26.4	22.5	NA	NA	2 1	High	7	4	37	32	Tyco International (2)	Average	IV 99	30.5	III 98	-13.4	800-225-7670
25.3	23.9	21.8	16.9	15.1	2 2 3 1	Low	12	61	38	45	Micron Tech. (2)	Low	IV 99	22.2	III 98	-10.2	800-421-4120
14.5	20.7	18.2	14.9	12.9	1 3 1 3	Low	8	1	33	49	General Motors Cl. H (5)	Average	IV 98	19.3	III 98	-15.9	800-227-5987
12.8	18.4	15.7	13.6	11.5	2 3 2 3	Low	7	2	33	47	General Motors Cl. H (6)	Average	IV 98	16.0	III 98	-15.6	800-227-5987
7.9	15.6	13.0	13.6	11.5	1 2 2 4	Low	4	5	25	31	Intl. Speedway Cl. B (4)	High	IV 98	19.6	III 98	-17.0	800-227-5987
32.3	32.1	30.5	19.0	17.1	2 4 1 1	Low	0	2	41	41	Microsoft (5)	Average	IV 98	27.5	III 98	-14.0	800-225-6704
26.8	26.1	24.3	NA	NA	2 1	Average	4	2	44	26	General Electric (4)	Average	IV 98	24.8	III 98	-11.3	800-595-9111
18.8	13.8	12.0	NA	NA	4 2	Very high	7	97	34	16	Novartis (Reg.) (2)	Average	IV 98	18.8	III 98	-13.7	800-595-9111
NA	NA	NA	NA	NA			3	2	50	24	Verity (3)			NA		NA	800-595-9111
37.8	34.0	32.0	NA	NA	1 1	Average	0	6	45	38	Microsoft (4)	Average	IV 99	40.7	III 98	-10.7	800-595-9111
25.8	NA	NA	NA	NA	2	Very low	7	3	37	13	Microsoft (4)			NA		NA	800-595-9111
67.9	NA	NA	NA	NA	1	Average	2	8	53	35	Xilinx (4)			NA		NA	800-595-9111
14.6	NA	NA	NA	NA	3	High	7	18	25	19	Hoechst ADR (4)			NA		NA	800-351-4100
NA	NA	NA	NA	NA			3	NA	41	13	General Electric (6)			NA		NA	800-621-7227
15.9	21.4	20.6	NA	NA	1 3	Low	4	NA	28	9	Ambac Financial Group (8)	Average	IV 98	24.4	III 98	-18.6	800-622-2474

DATA: MORNINGSTAR, INC., CHICAGO, IL

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MUTUAL FUND SCOREBOARD

FUND	OVERALL RATING (COMPARES RISK-ADJUSTED PERFORMANCE OF EACH FUND AGAINST ALL FUNDS)	CATEGORY	RATING (COMPARES RISK-ADJUSTED PERFORMANCE OF FUND WITHIN CATEGORY)	SIZE ASSETS $MIL.	SIZE % CHG. 1998-99	FEES SALES CHARGE (%)	FEES EXPENSE RATIO (%)	1999 RETURNS (% PRE-TAX	1999 RETURNS (% AFTER-TAX
OAKMARK I (iiii)	C–	Large-cap Value	F	3817.8	–50	No load	1.11	–10.5	–13.5
OAKMARK INTERNATIONAL I (jjjj)	D	Foreign	D	785.1	–2	No load	1.29	39.5	38.0
OAKMARK SELECT I (kkkk)		Mid-cap Value		1559.5	20	No load	1.16	14.5	10.3
OAKMARK SMALL CAP I (llll)		Small-cap Value		375.0	–45	No load	1.48	–7.9	–7.9
OLSTEIN FINANCIAL ALERT		Mid-cap Value		374.5	37	2.50**	2.25†	34.9	26.0
ONE GROUP BALANCED B (mmmm)	B+	Domestic Hybrid	B	284.0	78	5.00**	1.85†	6.6	5.1
ONE GROUP DIVERSIFIED EQUITY A (nnnn)	B	Large-cap Blend	C	326.2	243	5.25	1.20†	13.5	12.1
ONE GROUP EQUITY INDEX A	B+	Large-cap Blend	B	850.8	213	5.25	0.60†	20.3	19.7
ONE GROUP INV. BALANCED B		Domestic Hybrid		279.4	129	5.00**	1.20†	7.6	6.6
ONE GROUP INV. GROWTH & INCOME B		Large-cap Blend		283.2	115	5.00**	1.20†	10.9	10.1
ONE GROUP LARGE CAP GROWTH B (oooo)	B+	Large-cap Growth	B+	738.6	93	5.00**	1.96†	26.6	23.6
OPPENHEIMER CAPITAL APPRECIATION A	B+	Large-cap Growth	B	2399.4	39	5.75	1.00†	42.1	40.1
OPPENHEIMER CAPITAL INCOME A (pppp)	C	Domestic Hybrid	D	2619.3	–20	5.75	0.87†	–6.3	–8.8
OPPENHEIMER DISCIPLINED VALUE A	C–	Large-cap Value	D	380.7	–22	5.75	0.98†	–4.7	–8.0
OPPENHEIMER DISCOVERY A	D	Small-cap Growth	C–	904.8	–18	5.75	1.18†	51.3	49.6
OPPENHEIMER ENTERPRISE A		Small-cap Growth		510.4	313	5.75‡	1.48†	105.8	103.3
OPPENHEIMER GLOBAL A	B	World	B	4478.8	31	5.75	1.16†	58.5	55.7
OPPENHEIMER GLOBAL GROWTH & INCOME A	A	International Hybrid	A	619.6	141	5.75	1.36†	86.6	83.6
OPPENHEIMER GROWTH A	B+	Large-cap Blend	B	1967.2	20	5.75	1.00†	46.7	44.9
OPPENHEIMER MAIN ST. GROWTH & INCOME A	B	Large-cap Blend	C	8694.3	33	5.75	0.90†	17.1	14.6
OPPENHEIMER MULTIPLE STRATEGIES A	B	Domestic Hybrid	C–	648.9	–3	5.75	1.08†	10.6	7.7
OPPENHEIMER QUEST BAL. VALUE A	B+	Domestic Hybrid	B	1019.5	435	5.75	1.55†	11.2	9.9
OPPENHEIMER QUEST GLOBAL VALUE A	B	World	B	358.5	20	6.75*	1.76†	25.0	19.0
OPPENHEIMER QUEST OPPORTUNITY B	C	Large-cap Value	B	1862.1	–10	5.00**	2.04†	8.7	6.0
OPPENHEIMER QUEST VALUE A	C	Large-cap Value	C–	829.7	–18	5.75	1.59†	–0.0	–3.0
OPPENHEIMER TOTAL RETURN A	B+	Large-cap Blend	B	3157.9	21	5.75	0.86†	18.3	16.2
PAINEWEBBER GROWTH A	C	Large-cap Growth	D	309.2	12	4.50	1.19†	32.5	30.9
PAINEWEBBER GROWTH & INCOME A	B	Large-cap Blend	C	781.2	–10	4.50	1.07†	9.0	8.2
PAINEWEBBER TACTICAL ALLOCATION C	B+	Large-cap Blend	B	710.4	28	1.00**	1.70†	17.6	17.1
PARNASSUS	D	Mid-cap Blend	F	281.5	2	3.50	1.10	47.7	45.8
PAX WORLD	A	Domestic Hybrid	A	1017.1	21	No load	0.95†	17.2	15.1
PBHG EMERGING GROWTH	D	Small-cap Growth	D	768.0	–26	No load	1.34	48.3	47.3
PBHG GROWTH	D	Mid-cap Growth	F	3323.1	–16	No load	1.32	92.5	91.1
PBHG LARGE CAP 20		Large-cap Growth		599.5	10	No load	1.27	102.9	96.6
PBHG SELECT EQUITY		Mid-cap Growth		369.8	28	No load	1.34	164.7	157.0
PBHG TECHNOLOGY & COMMUNICATIONS		Technology		1183.7	199	No load	1.34	243.9	236.1
PENNSYLVANIA MUTUAL INV.	C–	Small-cap Value	B	402.4	–14	1.00*	1.01	6.0	4.3
PHOENIX-ENGEMANN AGGR. GROWTH A (qqqq)	C	Mid-cap Growth	B	447.5	54	4.75	1.21†	83.7	79.5
PHOENIX-ENGEMANN FOCUS GROWTH A (rrrr)	C	Large-cap Growth	C–	558.2	26	4.75	1.58†	50.6	42.5
PHOENIX-ENGEMANN NIFTY FIFTY A	C	Large-cap Growth	C–	321.3	37	4.75	1.60†	32.5	28.3
PHOENIX-GOODWIN BALANCED A (ssss)	B	Domestic Hybrid	C–	1571.6	–7	4.75	0.97†	10.8	8.6
PHOENIX-GOODWIN GROWTH A (tttt)	B	Large-cap Growth	C	2939.4	4	4.75	1.08†	29.0	26.2
PHOENIX-OAKHURST INC. & GROWTH A (uuuu)	B	Domestic Hybrid	C	512.2	–12	4.75	1.17†	6.6	5.4
PHOENIX-OAKHURST STRAT. ALLOC. A (vvvv)	C	Domestic Hybrid	D	303.4	–5	4.75	1.17†	11.0	8.9
PHOENIX-SENECA MID-CAP A (wwww)	C–	Mid-cap Growth	C	321.9	5	4.75	1.30†	53.7	50.7
PHOENIX-ZWEIG MANAGED ASSETS C (xxxx)	B+	International Hybrid	B	396.2	–8	1.25**	2.21†	8.0	6.1
PILGRIM INTERNATIONAL VALUE A (yyyy)		Foreign		511.2	121	5.75	1.74†	51.3	49.7
PILGRIM MAGNACAP A	B	Large-cap Blend	C	343.8	–2	5.75	1.35†	12.2	9.7
PIMCO GROWTH C	B	Large-cap Growth	C	2088.2	8	1.00**	1.90†	39.8	35.6
PIMCO INNOVATION C	B	Technology	B+	1028.9	215	1.00**	2.05†	138.5	132.3
PIMCO OPPORTUNITY C	D	Small-cap Growth	D	335.4	–9	1.00**	2.06†	54.0	54.2
PIMCO RENAISSANCE C	C	Mid-cap Value	B	367.4	–14	1.00**	2.00†	9.0	3.2
PIMCO STOCKSPLUS INSTL.	A	Large-cap Blend	B+	587.9	30	No load	0.65	20.1	14.8
PIMCO TARGET C	C	Mid-cap Growth	B	1078.4	21	1.00**	1.95†	65.1	61.5
PIONEER A	B+	Large-cap Blend	B	6637.4	23	5.75	1.08†	15.5	14.4
PIONEER CAPITAL GROWTH A	C–	Mid-cap Value	C–	1097.5	–17	5.75	1.08†	12.6	9.2
PIONEER EQUITY-INCOME A	C	Large-cap Value	C	634.0	–1	5.75	1.05†	0.8	–0.9
PIONEER EUROPE A	B	Europe	C	279.2	–19	5.75	1.54†	25.2	24.3
PIONEER GROWTH A	C	Large-cap Growth	C–	1936.4	38	5.75	0.95†	7.4	5.5
PIONEER INTERNATIONAL GROWTH A	D	Foreign	F	332.3	6	5.75	1.72†	41.8	41.8
PIONEER MID-CAP A	D	Mid-cap Growth	D	842.4	–5	5.75	0.79†	31.0	26.1
PIONEER II A	D	Mid-cap Value	D	5075.9	–19	5.75	0.90†	1.6	0.8
PREFERRED GROWTH	C	Large-cap Growth	C	721.4	30	No load	0.83	44.8	41.4
PREFERRED INTERNATIONAL	C	Foreign	B	334.2	26	No load	1.20	32.9	31.4
PREFERRED VALUE	C	Large-cap Value	C	387.4	0	No load	0.84	4.2	1.3
PRINCIPAL GROWTH A	C	Large-cap Blend	D	500.5	13	4.75	0.95†	16.1	15.2
PRINCIPAL INTERNATIONAL A	C	Foreign	B	356.0	10	4.75	1.25†	25.8	21.6
PRINCIPAL MIDCAP A	C–	Mid-cap Blend	C–	330.8	–9	4.75	1.22†	11.6	10.6
PROFUNDS ULTRAOTC INV.		Large-cap Growth		708.4	196	No load	1.07	233.3	232.9
PRUDENTIAL 20/20 FOCUS B		Large-cap Blend		672.5	68	5.00**	2.07†	31.1	29.5

*Includes redemption fee. **Includes deferred sales charge. †12(b)-1 plan in effect. ‡Not currently accepting new accounts. §Less than 0.5% of assets. NA=Not available. NM=Not mean
(iiii) Formerly Oakmark. (jjjj) Formerly Oakmark International. (kkkk) Formerly Oakmark Select. (llll) Formerly Oakmark Small Cap. (mmmm) Formerly One Group Asset Allocation B. (nnnn
merly One Group Value Growth A. (oooo) Formerly One Group Large Company Growth B. (pppp) Formerly Oppenheimer Equity-Income A. (qqqq) Formerly Phoenix Aggressive Growth A.
Formerly Phoenix-Engemann Growth A. (ssss) Formerly Phoenix Balanced A. (tttt) Formerly Phoenix Growth A. (uuuu) Formerly Phoenix Income & Growth A. (vvvv) Formerly Phoenix Stra

E ANNUAL TOTAL RETURNS (%) HISTORY						PORTFOLIO DATA						RISK					TELEPHONE
RS TERTAX	5 YEARS PRETAX	5 YEARS AFTERTAX	10 YEARS PRETAX	10 YEARS AFTERTAX	RESULTS VS. ALL FUNDS	TURNOVER	CASH %	FOREIGN %	P-E RATIO	UNTAXED GAINS (%)	LARGEST HOLDING COMPANY (% ASSETS)	LEVEL	BEST QTR	BEST %RET	WORST QTR	WORST %RET	
4.3	14.0	11.4	NA	NA	1 1 4	Very low	4	NA	18	-7	H & R Block (6)	Average	II 97	15.2	III 98	-13.8	800-625-6275
7.1	13.2	10.6	NA	NA	3 4	Average	2	100	24	-10	Metso (5)	High	II 99	21.0	III 98	-19.4	800-625-6275
5.2	NA	NA	NA	NA	2	Average	8	12	16	2	Washington Mutual (11)			NA		NA	800-625-6275
2.7	NA	NA	NA	NA	4	Average	5	2	23	-3	Symantec (6)			NA		NA	800-625-6275
2.6	NA	NA	NA	NA	1	Very high	27	0	25	10	Sbarro (2)			NA		NA	800-799-2113
2.9	16.2	13.9	NA	NA	3 3	Average	11	2	35	12	S&P 500 Index (Fut.) (8)	Very low	IV 98	12.1	III 98	-4.4	800-480-4111
2.7	24.8	20.8	17.4	14.8	1 3 1 2	Average	4	1	35	30	Microsoft (4)	Low	IV 98	21.4	III 98	-10.1	800-480-4111
5.8	27.8	26.6	NA	NA	3 1 2	Very low	1	3	36	44	Microsoft (4)	Low	IV 98	21.2	III 98	-10.0	800-480-4111
1.4	NA	NA	NA	NA	3	Very low	2	NA	34	5	One Group Bond I (12)			NA		NA	800-480-4111
5.0	NA	NA	NA	NA	3	Low	1	NA	32	5	One Group Divers Eq. I (14)			NA		NA	800-480-4111
0.2	28.4	25.8	NA	NA	2 1	Average	3	1	45	43	Microsoft (8)	Average	IV 98	24.1	III 98	-6.8	800-480-4111
8.2	30.9	27.8	19.9	17.5	2 3 1 1	Average	8	8	39	37	Microsoft (4)	Average	IV 99	28.9	III 98	-16.6	800-525-7048
7.6	15.6	12.8	11.0	8.6	3 3 2 4	Low	28	1	21	22	Chase Manhattan (2)	Low	II 97	11.3	III 99	-9.6	800-525-7048
6.1	15.7	12.9	13.4	10.5	2 1 2 4	High	4	4	21	11	IBM (3)	Average	IV 98	18.3	III 98	-15.4	800-525-7048
7.0	20.8	19.1	16.5	15.0	2 1 3 2	Average	8	5	40	48	Harmonic (4)	High	IV 99	59.4	III 98	-21.4	800-525-7048
7.2	NA	NA	NA	NA	1	High	17	3	35	42	Corporate Executive Board (2)			NA		NA	800-525-7048
6.8	24.4	21.9	16.2	13.9	3 2 3 1	Average	4	58	35	43	Qualcomm (7)	Low	IV 99	36.4	III 98	-17.1	800-525-7048
5.4	29.6	25.9	NA	NA	2 3 1	High	0	45	40	34	Qualcomm (7)	Low	IV 99	32.5	III 98	-17.5	800-525-7048
1.9	26.2	23.1	18.3	15.9	1 2 1 1	Low	30	1	47	41	JDS Uniphase (6)	Low	IV 99	30.2	III 98	-13.6	800-525-7048
0.9	22.9	21.0	22.6	19.9	1 1 2 2	Average	5	3	33	34	Intel (4)	Low	IV 98	22.1	III 98	-11.0	800-525-7048
8.7	15.0	11.9	11.1	8.7	3 3 3 3	Average	9	21	28	21	IBM (3)	Very low	IV 98	11.2	III 98	-10.4	800-525-7048
0.0	23.1	19.9	NA	NA	3 2 2	High	8	11	31	11	Computer Assoc. Intl. (7)	Low	IV 98	21.4	III 99	-5.8	800-525-7048
4.4	17.7	15.2	NA	NA	2 3 3	Average	4	56	27	33	Freddie Mac (4)	Low	IV 98	14.8	III 98	-14.4	800-525-7048
0.1	19.2	17.9	NA	NA	1 3	Average	6	8	28	28	Citigroup (6)	Low	II 95	14.3	III 98	-13.1	800-525-7048
9.6	19.0	16.9	14.1	12.2	2 3 1 4	Very high	15	13	24	24	Computer Assoc Intl. (5)	Average	II 97	13.5	III 98	-13.6	800-525-7048
9.8	23.3	20.2	16.7	14.0	2 2 2 2	Low	14	0	37	34	Tyco International (4)	Low	IV 98	18.3	III 98	-10.8	800-525-7048
3.7	25.7	22.3	16.8	14.6	2 3 3 1	Average	7	5	44	56	Cisco Systems (3)	High	IV 98	30.6	III 98	-13.7	800-647-1568
7.7	22.8	20.4	13.6	12.0	2 4 1 2	Average	3	2	31	30	Applied Materials (3)	Low	IV 98	20.9	III 98	-14.0	800-647-1568
4.5	25.9	25.0	NA	NA	1 2	Low	0	3	36	30	Microsoft (4)	Low	IV 98	20.8	III 98	-10.3	800-647-1568
2.2	16.9	14.9	16.8	14.7	1 1 4 2	High	7	NA	37	39	Intel (11)	Very high	IV 98	44.6	III 98	-24.3	800NA-3505
9.8	21.1	18.6	13.5	11.1	2 4 3 2	Low	11	18	37	34	Vodafone Airtouch ADR (6)	Very low	IV 98	14.2	III 98	-2.1	800-767-1729
3.5	20.7	19.9	NA	NA	3 2	High	9	2	48	49	Whittman-Hart (3)	Very high	IV 99	45.9	I 97	-20.5	800-433-0051
2.9	25.3	25.1	23.6	21.5	3 1 3 1	Average	11	7	48	88	Gemstar Intl. Group (3)	Very high	IV 99	64.6	III 98	-26.2	800-433-0051
3.5	NA	NA	NA	NA	1	Average	12	4	50	82	Cisco Systems (6)			NA		NA	800-433-0051
8.4	NA	NA	NA	NA	1	Average	9	NA	56	59	BindView Development (5)			NA		NA	800-433-0051
2.6	NA	NA	NA	NA	1	Very high	4	10	53	73	Xilinx (6)			NA		NA	800-433-0051
9.0	13.1	9.5	10.7	7.9	3 3 3 3	Low	6	4	22	43	Natl. Computer Systems (2)	Average	II 99	19.5	III 98	-14.9	800-221-4268
7.9	37.0	32.2	21.1	17.6	3 3 2 1	High	7	NA	53	62	JDS Uniphase (5)	High	IV 99	52.0	III 98	-19.6	800-243-4361
9.1	30.0	26.7	18.6	17.0	1 4 2 1	High	0	1	49	77	Texas Instruments (8)	High	IV 98	34.6	III 98	-14.6	800-243-4361
6.6	28.2	26.5	NA	NA	4 1 1	Average	0	0	48	60	EMC (7)	Average	IV 98	30.7	III 98	-12.1	800-243-4361
2.6	15.8	12.3	11.8	9.0	1 4 4 3	High	2	6	42	21	Microsoft (3)	Low	IV 98	13.6	III 98	-5.5	800-243-4361
3.6	25.9	21.8	16.5	13.4	1 4 2 1	High	0	0	46	44	MCI WorldCom (5)	Average	IV 99	26.7	III 98	-8.8	800-243-4361
8.5	14.0	11.0	10.9	8.1	2 4 3 3	Average	2	2	32	10	S&P 500 Dep. Rec. SPDR (2)	Very low	IV 98	9.7	III 98	-6.0	800-243-4361
3.4	15.7	12.0	12.8	9.6	1 3 4 2	High	1	6	42	23	Microsoft (3)	Low	IV 98	16.1	III 98	-5.7	800-243-4361
3.8	24.3	20.0	19.7	16.8	1 3 4 1	Very high	3	5	52	30	Veritas Software (5)	High	IV 99	52.0	III 98	-16.1	800-243-4361
8.6	12.1	9.7	NA	NA	4 3	Average	19	49	27	23	IBM (1)	Very low	I 98	9.3	III 98	-4.3	800-444-2706
5.0	NA	NA	NA	NA	2	Low	8	99	33	21	Kyocera (5)			NA		NA	800-334-3444
2.6	21.7	17.8	14.8	12.1	3 3 1 2	Average	8	3	31	28	McDonald's (3)	Low	IV 98	18.9	III 98	-11.1	800-334-3444
8.8	28.8	24.3	18.9	15.5	1 3 3 1	High	5	3	44	43	Cisco Systems (4)	Average	IV 99	36.2	III 98	-12.6	800-426-0107
3.3	52.1	50.1	NA	NA	2 1	High	8	4	55	55	Cisco Systems (5)	High	IV 99	79.9	I 97	-12.8	800-426-0107
2.2	20.1	14.8	20.6	17.0	1 1 4 1	High	5	6	34	43	Winstar Comms. (2)	Very high	IV 99	45.7	III 98	-25.8	800-426-0107
2.1	20.9	16.0	13.7	10.8	4 3 1 3	Very high	3	13	26	-16	Aetna (5)	Average	IV 98	18.4	III 98	-16.8	800-426-0107
1.3	28.8	22.3	NA	NA	1 2	Average	21	NA	NA	1	NA	Low	IV 98	21.5	III 98	-9.8	800-927-4648
7.9	28.8	24.0	NA	NA	3 1	Very high	6	3	48	47	VISX (3)	High	IV 99	52.7	III 98	-13.3	800-426-0107
6.0	25.6	23.4	16.1	13.5	3 3 2 2	Very low	1	5	31	49	Schering-Plough (3)	Low	IV 98	22.3	III 98	-8.5	800-225-6292
5.7	13.0	10.5	NA	NA	1 3 4	Average	6	1	25	3	NCR (4)	Average	II 99	13.9	III 98	-21.4	800-225-6292
5.3	18.9	17.2	NA	NA	2 2 3	Very low	1	1	23	27	Ameritech (4)	Low	IV 98	14.4	III 99	-7.5	800-225-6292
1.4	23.1	21.4	NA	NA	3 2 2	Low	2	98	34	20	Sidel (4)	Low	IV 99	29.1	III 98	-19.9	800-225-6292
5.7	27.7	25.1	18.4	15.6	3 2 1 2	Low	4	1	41	13	Berkshire Hathaway Cl. A (7)	Average	II 97	24.1	III 98	-12.0	800-225-6292
9.7	11.0	9.0	NA	NA	4 4	High	1	99	35	-4	Vodafone Airtouch (2)	High	IV 99	28.2	III 98	-22.4	800-225-6292
2.0	15.9	12.4	12.6	9.8	2 2 4 2	High	0	4	32	28	America Online (3)	High	IV 99	32.2	III 98	-21.8	800-225-6292
3.5	12.4	10.2	9.8	7.2	4 2 2 4	Average	3	12	23	22	Philips Electronics ADR (5)	High	II 97	15.5	III 98	-22.3	800-225-6292
2.6	31.7	27.4	NA	NA	1 2 1	Average	3	7	48	50	Cisco Systems (4)	High	IV 99	29.0	III 98	-12.4	800-662-4769
4.8	15.1	13.9	NA	NA	3 4 3	Very low	7	98	26	31	Sony (4)	Average	IV 99	16.4	III 98	-16.1	800-662-4769
3.5	21.4	19.8	NA	NA	3 1 3	Low	10	9	23	52	Citigroup (10)	Average	IV 98	17.2	III 98	-15.8	800-662-4769
0.8	21.9	21.0	17.6	16.5	1 2 2 2	Low	8	2	43	46	Microsoft (5)	Average	IV 98	19.1	III 98	-15.6	800-451-5447
3.1	16.2	14.1	11.9	10.5	4 2 3 3	Low	3	100	28	29	LM Ericsson Tele. B (3)	Average	IV 99	16.8	III 98	-17.8	800-451-5447
0.5	17.0	16.2	15.3	14.7	1 1 2 4	Low	7	3	30	36	S&P 400 Index (Fut.) (5)	High	IV 99	21.6	III 98	-21.2	800-451-5447
NA	NA	NA	NA	NA			2	0	50	42	Nasdaq (Fut.) (52)			NA		NA	888-776-3637
NA	NA	NA	NA	NA			3	5	36	15	MCI WorldCom (4)			NA		NA	800-222-4321

A. (wwww) Formerly Phoenix Mid Cap A. (xxxx) Formerly Zweig Series Managed Assets C. (yyyy) Formerly Northstar International Value A.

DATA: MORNINGSTAR, INC., CHICAGO, IL

MUTUAL FUND SCOREBOARD

FUND	OVERALL RATING (COMPARES RISK-ADJUSTED PERFORMANCE OF EACH FUND AGAINST ALL FUNDS)	CATEGORY	RATING (COMPARES RISK-ADJUSTED PERFORMANCE OF FUND WITHIN CATEGORY)	SIZE ASSETS $MIL.	% CHG. 1998-99	FEES SALES CHARGE (%)	EXPENSE RATIO (%)	1999 RETURNS PRE-TAX	AFTER-TAX
PRUDENTIAL BALANCED A	C	Domestic Hybrid	F	550.2	10	5.00	1.17†	12.9	10.4
PRUDENTIAL EQUITY B	C	Large-cap Value	C	2352.9	–20	5.00**	1.60†	11.7	8.7
PRUDENTIAL EQUITY-INCOME B	C–	Mid-cap Value	C–	977.5	–23	5.00**	1.66†	10.7	7.7
PRUDENTIAL JENNISON GROWTH B		Large-cap Growth		1772.6	80	5.00**	1.83†	40.5	39.1
PRUDENTIAL SMALL COMP VAL A	D	Small-cap Value	C–	290.2	–29	5.00	1.17†	–6.3	–6.3
PRUDENTIAL UTILITY A	C	Utilities	C–	2700.2	–2	5.00	0.78†	3.9	1.1
PRUDENTIAL WORLD GLOBAL A (zzzz)	C	World	C	422.5	45	5.00	1.38†	48.6	46.0
PUTNAM ASIA PACIFIC GROWTH A	D	Diversified Pacific/Asia	B+	324.4	161	5.75	1.46†	107.7	107.2
PUTNAM ASSET ALLOC.: BALANCED A	B	Domestic Hybrid	C	997.7	0	5.75	1.22†	18.3	15.8
PUTNAM ASSET ALLOC.: CONSERV. A	B+	Domestic Hybrid	B	402.2	–2	5.75	1.39†	9.5	7.3
PUTNAM ASSET ALLOC.: GROWTH A	B	Large-cap Blend	C–	795.2	11	5.75	1.31†	24.7	21.7
PUTNAM BALANCED RETIREMENT A	B	Domestic Hybrid	C–	614.4	–7	5.75	1.13†	0.4	–2.0
PUTNAM CAPITAL APPRECIATION B	B	Mid-cap Blend	B+	1287.4	–25	5.00**‡	1.55†	17.2	16.7
PUTNAM EQUITY INCOME A	C	Large-cap Value	C	1115.7	0	5.75	0.99†	1.1	–1.8
PUTNAM EUROPE GROWTH A	B	Europe	B	925.5	6	5.75	1.23†	23.2	22.8
PUTNAM (GEORGE) OF BOSTON A	B	Domestic Hybrid	C–	3615.4	–5	5.75	1.00†	0.2	–2.3
PUTNAM GLOBAL EQUITY B (aaaaa)	B+	World	B+	547.5	46	5.00**	1.92†	58.6	52.7
PUTNAM GLOBAL GROWTH A	B	World	B+	4835.9	44	5.75	1.10†	64.5	60.8
PUTNAM GROWTH & INCOME A	C	Large-cap Value	C–	21089.6	2	5.75	0.84†	1.3	–1.1
PUTNAM GROWTH & INCOME II B		Large-cap Value		1337.6	–13	5.00**	1.71†	–1.6	–3.9
PUTNAM GROWTH OPPORT. B		Large-cap Growth		2145.6	259	5.00**	1.76†	50.3	50.3
PUTNAM HEALTH SCIENCES A	C	Health	C	2864.2	–2	5.75	0.95†	–4.4	–4.4
PUTNAM INTERNATIONAL GROWTH & INC. A		Foreign		527.8	30	5.75	1.30†	25.7	21.4
PUTNAM INTERNATIONAL GROWTH A	B	Foreign	B+	4156.2	91	5.75	1.27†	60.8	59.2
PUTNAM INTL. NEW OPPORT. B		Foreign		1396.5	53	5.00**	2.50†	103.4	100.8
PUTNAM INTL. VOYAGER A		Foreign		373.1	226	5.75	1.78†	93.3	91.7
PUTNAM INVESTORS A	B+	Large-cap Growth	B+	6858.8	63	5.75	0.89†	30.1	30.0
PUTNAM NEW OPPORTUNITIES A	C	Large-cap Growth	D	14573.0	36	5.75‡	0.93†	69.7	66.8
PUTNAM NEW VALUE A	C–	Large-cap Value	F	350.0	–12	5.75	1.09†	–0.1	–3.2
PUTNAM OTC EMERGING GROWTH A	D	Small-cap Growth	C	4409.2	71	5.75	0.98†	126.9	124.2
PUTNAM RESEARCH B		Large-cap Blend		633.9	168	5.00**	1.83†	26.6	24.4
PUTNAM UTILITIES GROWTH & INCOME A	B	Utilities	C	980.8	8	5.75	1.05†	–1.0	–3.2
PUTNAM VISTA A	C	Mid-cap Growth	B	4365.7	27	5.75	0.94†	53.2	48.9
PUTNAM VOYAGER A	C	Large-cap Growth	C–	20376.9	31	5.75	0.96†	56.1	53.1
PUTNAM VOYAGER II A	C	Mid-cap Growth	B	1300.4	73	5.75	1.12†	79.9	77.8
RAINIER CORE EQUITY	A	Large-cap Blend	B+	960.5	7	No load	1.13†	26.6	24.6
RAINIER SMALL/MID CAP EQUITY	C	Mid-cap Blend	C	438.5	–19	No load	1.25†	17.7	17.7
REGIONS GROWTH TR.		Large-cap Growth		376.8	47	No load	NA	28.6	27.7
REYNOLDS BLUE CHIP GROWTH	A	Large-cap Growth	A	482.1	181	No load	1.40†	51.0	51.0
RIGHTIME BLUE CHIP	B	Large-cap Blend	C	297.3	4	4.75	2.15†	2.1	2.1
ROYCE PREMIER	C	Small-cap Value	B+	532.7	–7	1.00*	1.23	11.5	9.7
RS EMERGING GROWTH	C	Small-cap Growth	B+	2555.2	548	No load	1.47†	182.5	177.2
RS INFORMATION AGE		Technology		275.9	75	No load	1.74†	126.2	119.1
RS VALUE + GROWTH	D	Large-cap Growth	F	640.4	–6	No load	1.46†	28.4	25.6
RYDEX NOVA INV.	C	Large-cap Blend	D	582.8	–38	No load	1.19	24.0	24.0
RYDEX OTC INV.	A	Large-cap Growth	A	2158.0	95	No load	1.15	100.7	100.2
RYDEX URSA INV.	F	Large-cap Blend	F	426.1	1	No load	1.39	–12.4	–12.5
SAFECO EQUITY NO LOAD	B	Large-cap Value	B+	2047.7	1	No load	0.74	9.4	7.8
SAFECO GROWTH NO LOAD	C–	Small-cap Blend	C	815.6	–42	No load	0.77	2.6	2.6
SAFECO INCOME NO LOAD	C	Large-cap Value	C–	293.8	–21	No load	0.82	1.2	–0.3
SALOMON BROS. INVESTORS VALUE O (bbbbb)	B	Large-cap Value	B+	660.7	2	No load‡	0.63	11.7	7.7
SCHWAB ANALYTICS		Large-cap Blend		281.0	29	No load	0.75	27.8	25.5
SCHWAB INTERNATIONAL INDEX INV.	C	Foreign	B	484.6	3	0.75*	0.58	33.6	33.3
SCHWAB MARKETTRACK BALANCED		Domestic Hybrid		436.0	46	No load	0.59	14.0	13.2
SCHWAB MARKETTRACK GROWTH		Large-cap Blend		492.7	58	No load	0.60	19.4	18.8
SCHWAB 1000 INV.	B+	Large-cap Blend	B	4900.0	17	0.50*	0.46	21.0	20.8
SCHWAB S&P 500 INV.		Large-cap Blend		3184.0	39	No load	0.35	20.6	20.2
SCHWAB SMALL CAP INDEX INV.	C–	Small-cap Blend	C	494.5	–10	0.50*	0.49	24.2	24.1
SCUDDER BALANCED	B+	Domestic Hybrid	C	573.1	119	No load	1.29	13.5	12.9
SCUDDER DEVELOPMENT	D	Mid-cap Growth	D	742.4	–5	No load	1.51	35.0	31.3
SCUDDER GLOBAL	C	World Stock	B	1555.4	–4	No load	1.34	23.5	20.4
SCUDDER GREATER EUROPE GROWTH	A	Europe Stock	A	1119.1	–12	No load	1.48	34.6	34.4
SCUDDER GROWTH & INCOME	C	Large-cap Value	C	6773.7	–11	No load	0.74	6.2	5.0
SCUDDER INTERNATIONAL	C	Foreign	B+	4360.6	48	No load	1.17	57.9	55.2
SCUDDER LARGE COMPANY GROWTH	B	Large-cap Growth	C	1026.5	64	No load	1.19	35.1	34.6
SCUDDER LARGE COMPANY VALUE	C	Large-cap Value	C	2354.9	0	No load	0.88	4.7	3.1
SCUDDER LATIN AMERICA	F	Latin America Stock	B+	513.1	11	No load	1.87	47.2	47.1
SCUDDER PATHWAY BALANCED		Domestic Hybrid		270.2	11	No load	NA	16.7	14.4
SCUDDER S&P 500 INDEX		Large-cap Blend		328.7	161	No load	0.40	20.4	20.0
SCUDDER TECHNOLOGY		Technology		315.8	424	1.00*	1.75	167.1	164.5

*Includes redemption fee. **Includes deferred sales charge. †12(b)-1 plan in effect. ‡Not currently accepting new accounts. §Less than 0.5% of assets. NA=Not available. NM=Not mea
(zzzz) Formerly Prudential World Global A. (aaaaa) Formerly Putnam Diversified Equity B. (bbbbb) Formerly Salomon Brothers Investors O.

GE ANNUAL TOTAL RETURNS (%)					HISTORY	PORTFOLIO DATA							RISK					TELEPHONE
ARS	5 YEARS		10 YEARS		RESULTS VS.	TURNOVER	CASH	FOREIGN	P-E	UNTAXED	LARGEST HOLDING		LEVEL	BEST		WORST		
FTERTAX	PRETAX	AFTERTAX	PRETAX	AFTERTAX	ALL FUNDS		%	%	RATIO	GAINS (%)	COMPANY (% ASSETS)			QTR	%RET	QTR	%RET	
8.5	13.9	10.8	NA	NA	3 4 3	High	1	3	33	12	Alcoa (2)		Low	II 97	11.2	III 98	-8.4	800-225-1852
11.7	17.7	15.2	14.0	11.5	2 2 2 3	Low	8	6	25	24	Tandy (4)		Low	II 99	14.8	III 98	-15.5	800-225-1852
10.5	16.1	13.5	12.5	10.2	3 2 2 3	Low	1	10	26	21	Alcoa (7)		Average	II 97	16.3	III 98	-18.5	800-225-1852
34.2	NA	NA	NA	NA	1	Average	3	4	42	31	MCI WorldCom (4)				NA		NA	800-225-1852
2.1	11.4	9.0	NA	NA	1 2 4	Low	7	1	14	-8	Finl. Sec. Assurance (3)		High	III 97	16.0	III 98	-23.1	800-225-1852
9.9	17.1	14.2	NA	NA	4 3 3	Low	2	15	21	26	Coastal (4)		Low	II 99	13.2	I 99	-6.2	800-225-1852
22.1	21.4	19.1	NA	NA	1 3 1	Average	7	56	39	52	PMC Sierra (3)		Average	IV 99	31.2	III 98	-14.7	800-225-1852
15.4	11.8	10.3	NA	NA	1 4 2	High	1	99	39	35	Nikko Securities (4)		High	IV 99	42.0	IV 97	-15.0	800-225-1581
13.3	17.5	15.3	NA	NA	3 3	High	0	23	34	23	DAX Index (Fut.) (1)		Low	IV 98	15.0	III 98	-11.3	800-225-1581
8.1	12.3	10.3	NA	NA	4 3	Very high	1	29	34	12	DAX Index (Fut.) (1)		Very low	IV 98	8.8	III 98	-6.0	800-225-1581
16.9	20.2	18.3	NA	NA	2 2	High	0	19	34	30	General Electric (1)		Low	IV 98	19.3	III 98	-13.9	800-225-1581
6.3	13.4	10.5	10.8	7.9	2 3 3 4	High	3	3	25	1	Bank of America (1)		Very low	II 97	8.6	III 99	-6.1	800-225-1581
17.1	22.9	21.9	NA	NA	1 3	Average	6	5	27	25	General Electric (3)		Average	IV 99	23.7	III 98	-17.5	800-225-1581
10.3	18.7	16.6	12.9	10.8	4 2 1 3	Average	4	2	25	13	Bank of America (2)		Low	IV 98	13.9	III 99	-10.2	800-225-1581
21.5	22.5	20.9	NA	NA	2 2 2	Average	2	100	26	21	Novartis ADR (3)		Low	IV 99	21.8	III 98	-18.3	800-225-1581
7.5	15.2	12.3	11.4	8.6	2 4 2 4	High	4	4	24	1	Bank of America (1)		Low	II 97	9.6	III 99	-7.0	800-225-1581
27.8	27.6	24.5	NA	NA	2 1	Very high	0	56	39	41	Microsoft (2)		Low	IV 99	35.0	III 98	-14.8	800-225-1581
30.6	26.3	23.5	16.3	14.3	4 2 3 1	High	1	52	40	54	Nokia Cl. A (2)		Average	IV 99	47.8	III 98	-12.3	800-225-1581
10.4	19.2	16.3	14.1	11.4	2 3 1 3	Average	1	3	26	19	General Electric (3)		Average	IV 98	16.7	III 99	-10.3	800-225-1581
8.3	NA	NA	NA	NA	4	Average	2	1	26	13	Xerox (2)				NA		NA	800-225-1581
NA	NA	NA	NA	NA		Average	2	5	49	25	General Electric (6)				NA		NA	800-225-1581
15.7	21.6	20.2	16.8	15.2	1 3 1 3	Average	5	15	39	23	Johnson & Johnson (5)		Average	II 97	20.3	III 98	-6.4	800-225-1581
16.5	NA	NA	NA	NA	2	Average	7	95	26	20	Hoechst (2)				NA		NA	800-225-1581
29.6	24.4	23.3	NA	NA	1 3 1	Average	2	97	33	35	Mannesmann (3)		Average	IV 99	35.7	III 98	-19.1	800-225-1581
31.5	NA	NA	NA	NA	1	High	2	99	46	60	Vodafone Group (3)				NA		NA	800-225-1581
40.5	NA	NA	NA	NA	1	High	4	91	32	40	Esat Telecom Group ADR (2)				NA		NA	800-225-1581
32.2	31.7	29.0	19.8	16.5	3 2 1 1	Average	5	2	42	28	Microsoft (4)		Average	IV 98	25.3	III 98	-12.0	800-225-1581
36.0	33.2	32.4	NA	NA	1 2 1	Average	3	5	48	62	Clear Channel Comms. (3)		High	IV 99	50.0	III 98	-18.9	800-225-1581
5.4	15.8	13.4	NA	NA	1 4	Average	2	5	23	4	Citigroup (2)		Average	IV 98	16.4	III 99	-13.9	800-225-1581
39.6	35.3	33.3	24.2	22.0	4 1 2 1	High	5	5	51	62	Metromedia Fiber Net. Cl. A (6)		Very high	IV 99	81.3	III 98	-26.6	800-225-1581
NA	NA	NA	NA	NA		High	NA	4	38	15	General Electric (3)				NA		NA	800-225-1581
10.5	16.9	14.3	NA	NA	4 3 3	Low	4	9	20	25	SBC Comms. (5)		Low	IV 97	12.2	I 99	-7.8	800-225-1581
28.5	30.9	28.1	20.7	17.8	2 2 1 1	High	3	NA	37	44	Veritas Software (3)		High	IV 99	42.1	III 98	-17.4	800-225-1581
32.5	31.0	28.8	22.1	20.0	1 1 2 1	Average	3	6	46	52	AT&T Liberty Media Cl. A (4)		Average	IV 99	40.2	III 98	-16.2	800-225-1581
39.1	34.7	34.0	NA	NA	2 1	Average	3	8	47	52	AT&T Liberty Media Cl. A (3)		High	IV 99	54.6	III 98	-17.7	800-225-1581
24.0	30.0	26.8	NA	NA	1 1	High	4	3	39	30	Microsoft (4)		Average	IV 98	25.1	III 98	-14.3	800-248-6314
15.4	23.7	21.4	NA	NA	1 3	High	1	4	34	7	Symbol Tech. (3)		Average	IV 99	24.0	III 98	-21.1	800-248-6314
NA	NA	NA	NA	NA			2	2	38	NA	Microsoft (7)				NA		NA	800-433-2829
44.9	39.1	38.8	20.9	20.6	2 4 1 1	Low	2	4	45	36	America Online (4)		Average	IV 99	33.5	III 98	-7.8	800-773-9665
11.7	15.3	13.7	11.2	9.3	3 3 4 3	Very low	0	3	36	37	Microsoft (4)		Very low	IV 98	15.6	III 99	-2.8	800-242-1421
10.9	14.4	12.7	NA	NA	1 3 3	Average	1	5	22	25	Marshall Industries (4)		Average	II 99	21.0	III 98	-14.5	800-221-4268
57.2	44.4	39.6	28.5	25.4	1 1 3 1	Very high	4	6	52	41	Network Solutions Cl. A (2)		High	IV 99	75.1	III 98	-23.4	800-766-3863
51.9	NA	NA	NA	NA	1	Very high	14	6	57	63	Microsoft (6)				NA		NA	800-766-3863
19.4	24.9	22.1	NA	NA	1 1 2	Very high	0	2	43	45	Texas Instruments (5)		High	IV 98	24.1	IV 95	-14.7	800-766-3863
33.4	35.1	34.4	NA	NA	1 1	Very high	0	1	37	14	S&P 500 Index (Fut.) (90)		High	IV 98	31.7	III 98	-16.9	800-820-0888
65.5	56.6	55.8	NA	NA	1 1	Very high	0	1	52	40	Microsoft (13)		High	IV 99	53.0	IV 97	-9.7	800-820-0888
-17.7	-17.1	-17.3	NA	NA	4 4	Very low	0	NA	NA	-58	S&P 500 Index (Fut.) 3 (100)		Very high	III 98	10.9	IV 98	-17.1	800-820-0888
17.7	21.6	18.8	17.2	14.6	4 1 2 2	Low	2	2	31	35	Microsoft (5)		Low	IV 98	18.7	III 98	-7.8	800-426-6730
15.5	20.0	15.8	14.9	11.5	3 1 1 3	Average	0	4	26	-13	AmFm (9)		High	IV 98	19.5	III 98	-25.4	800-426-6730
8.5	17.1	14.0	11.6	9.2	3 3 2 4	Average	5	3	28	24	MICROS Systems (4)		Average	IV 98	14.6	III 98	-17.5	800-426-6730
14.4	23.5	19.6	15.6	11.8	3 2 1 3	Average	8	6	25	26	Bank of New York (4)		Low	IV 98	17.4	III 98	-12.4	800-725-6666
26.7	NA	NA	NA	NA	1	High	1	2	33	40	Microsoft (5)				NA		NA	800-435-4000
18.1	15.7	15.3	NA	NA	4 2	Very low	2	98	34	41	BP Amoco (3)		Average	IV 99	19.9	III 98	-14.9	800-435-4000
14.1	NA	NA	NA	NA	3	Low	0	17	29	16	Schwab Total Bond Mkt. Ind. (34)				NA		NA	800-435-4000
17.5	NA	NA	NA	NA	2	Very low	0	22	29	15	Schwab Small Cap. Index Inv. (20)				NA		NA	800-435-4000
26.3	27.5	27.1	NA	NA	3 1 1	Very low	0	0	34	47	Microsoft (4)		Low	IV 98	21.9	III 98	-10.7	800-435-4000
26.6	NA	NA	NA	NA	2	Very low	1	2	35	27	Microsoft (4)				NA		NA	800-435-4000
14.1	17.3	16.9	NA	NA	3 3	Low	0	0	24	19	Interstate Energy (5)		High	II 97	18.1	III 98	-20.9	800-435-4000
17.6	18.9	17.2	NA	NA	3 2	Average	13	2	43	16	General Electric (3)		Low	IV 98	14.7	III 98	-6.3	800-225-2470
13.4	20.9	17.9	16.4	13.8	1 3 3 2	Average	6	1	41	58	Concord EFS (4)		High	IV 99	29.6	III 98	-19.9	800-225-2470
14.5	17.4	14.7	12.4	10.5	4 2 3 3	Average	5	67	35	35	Sony (2)		Low	IV 99	15.2	III 98	-12.3	800-225-2470
28.3	28.4	27.6	NA	NA	2 1	Average	1	100	34	25	Equant (2)		Low	IV 99	30.9	III 98	-16.2	800-225-2470
11.5	18.7	16.5	14.4	12.1	2 2 1 3	Low	0	10	28	26	Corning (5)		Average	II 97	15.3	III 98	-13.4	800-225-2470
23.9	21.1	19.0	13.1	11.3	4 2 4 1	Average	0	100	38	40	Elf Aquitaine (3)		Average	IV 99	30.5	III 98	-14.4	800-225-2470
32.5	30.2	28.6	NA	NA	4 1 1	Average	3	NA	48	38	Microsoft (6)		Average	IV 99	28.1	III 98	-12.3	800-225-2470
13.2	19.0	16.1	12.6	9.9	4 3 1 3	Low	2	6	25	33	Bell Atlantic (4)		Average	IV 98	16.0	III 98	-14.2	800-225-2470
9.8	9.5	8.8	NA	NA	3 4	Low	5	99	16	8	Petrobras Pfd.(12)		Very high	IV 99	34.1	I 95	-23.2	800-225-2470
10.7	NA	NA	NA	NA	3	Low	5	NA	21	12	Scudder Income (24)				NA		NA	800-225-2470
NA	NA	NA	NA	NA		Very low	1	2	34	12	Microsoft (3)				NA		NA	800-225-2470
NA	NA	NA	NA	NA		High	13	8	53	45	Cisco Systems (6)				NA		NA	800-225-2470

DATA: MORNINGSTAR, INC., CHICAGO, IL.

MUTUAL FUND SCOREBOARD

FUND	OVERALL RATING (COMPARES RISK-ADJUSTED PERFORMANCE OF EACH FUND AGAINST ALL FUNDS)	CATEGORY	RATING (COMPARES RISK-ADJUSTED PERFORMANCE OF FUND WITHIN CATEGORY)	SIZE ASSETS $MIL.	SIZE % CHG. 1998-99	FEES SALES CHARGE (%)	FEES EXPENSE RATIO (%)	1999 RETURNS PRE-TAX	1999 RETURNS AFTER-TAX
SECURITY EQUITY A	B+	Large-cap Blend	C	998.5	6	5.75	1.02	11.0	10.2
SEI INDEX S&P 500 INDEX E	A	Large-cap Blend	B+	2004.9	38	No load	0.25	20.8	20.1
SEI INSTL. LARGE CAP GROWTH A	B+	Large-cap Growth	B+	3082.9	63	No load	0.85	34.5	33.6
SEI INSTL. LARGE CAP VALUE A	B	Large-cap Value	B	2937.9	68	No load	0.85	4.9	3.5
SEI INSTL. SMALL CAP GROWTH A	D	Small-cap Growth	C	1149.5	59	No load	1.10	75.2	72.8
SEI INSTL. SMALL CAP VALUE A	D	Small-cap Value	C–	618.9	21	No load	1.10	–7.0	–7.2
SELECTED AMERICAN	B+	Large-cap Value	A	3703.3	27	No load	0.94†	20.3	19.2
SELIGMAN CAPITAL A	C	Mid-cap Growth	B	331.8	11	4.75	0.99†	50.7	47.5
SELIGMAN COMMON STOCK A	C	Large-cap Blend	D	588.9	–9	4.75	1.11†	3.8	1.8
SELIGMAN COMMUN. & INFORM. A	D	Technology	F	5494.0	41	4.75	1.44†	74.5	68.5
SELIGMAN GROWTH A	B	Large-cap Growth	C	1038.0	11	4.75	1.14†	30.3	27.5
SELIGMAN HENDERSON GLOBAL TECH. A	C	Technology	B	936.0	65	4.75	1.67†	116.2	112.4
SENTINEL BALANCED A	B	Domestic Hybrid	D	290.5	–14	5.00	1.12†	0.5	–1.4
SENTINEL COMMON STOCK A	C	Large-cap Value	C	1499.6	–8	5.00	1.01†	3.1	1.3
SEQUOIA	C–	Large-cap Value	D	4321.1	–14	No load‡	1.00	–16.5	–17.5
SIFE TRUST A-I	C–	Financial	C	861.0	–15	5.00	1.25	–8.5	–11.1
SIT MID CAP GROWTH	C	Mid-cap Growth	B	453.1	25	No load	1.00	70.7	68.5
SKYLINE SPECIAL EQUITIES	D	Small-cap Value	D	306.9	–31	No load	1.47	–13.3	–14.7
SMALLCAP WORLD	C	Small-cap Growth	B+	10500.8	29	5.75	1.09†	61.6	61.1
SMITH BARNEY AGGRESSIVE GROWTH A	C	Large-cap Growth	D	782.3	68	5.00	1.21†	63.7	63.4
SMITH BARNEY APPRECIATION A	B+	Large-cap Blend	B	3328.4	14	5.00	0.95†	15.1	12.2
SMITH BARNEY BALANCED B	C	Domestic Hybrid	D	507.3	–24	5.00**	1.52†	11.2	10.2
SMITH BARNEY CONC. ALC. HI.-GRTH. A		Mid-cap Blend		454.4	33	5.00	0.60†	27.5	25.8
SMITH BARNEY CONCERT ALLOC. GR. B		Domestic Hybrid		503.9	17	5.00**	1.35†	16.3	15.0
SMITH BARNEY CONCERT SOC. AWARE. A	B+	Domestic Hybrid	B+	348.9	29	5.00	1.19†	12.9	11.5
SMITH BARNEY FUNDAMENTAL VALUE B	B	Large-cap Value	B	998.0	25	5.00**	1.92†	29.9	28.4
SMITH BARNEY INTL. EQUITY A	C–	Foreign	C–	484.6	20	5.00	1.28†	60.3	57.9
SMITH BARNEY LRG. CAP. GROWTH B		Large-cap Growth		1707.1	116	5.00**	1.95†	29.9	29.4
SMITH BARNEY LARGE CAP VALUE A	C	Large-cap Value	C–	746.5	–5	5.00	0.90†	–0.9	–2.3
SMITH BARNEY PREM. TOTAL RET. B	B	Large-cap Value	B+	1711.9	–45	5.00**	1.61†	5.0	0.5
SOGEN INTERNATIONAL A	B	International Hybrid	C–	1905.9	–28	3.75	1.23†	19.6	16.4
SOGEN OVERSEAS A	C	Foreign	B+	488.1	–18	3.75	1.29†	33.2	31.2
SOUND SHORE	C	Mid-cap Value	B	1183.9	–40	No load	0.99	0.1	–0.1
SOUTHTRUST VALUE (ccccc)	C	Large-cap Value	C–	328.4	–14	4.50	0.94	6.4	4.3
SPECTRA	B	Large-cap Growth	B	629.0	131	No load	1.90	72.0	68.7
SSGA EMERGING MARKETS	F	Diversified Emerging Mkts.	B+	362.2	53	No load	1.25†	64.8	63.7
SSGA GROWTH & INCOME	A	Large-cap Blend	B+	359.9	76	No load	0.95†	20.9	19.5
SSGA MATRIX EQUITY	B	Large-cap Blend	C–	580.2	2	No load	0.69†	15.4	11.2
SSGA S&P 500 INDEX	A	Large-cap Blend	B+	2930.1	30	No load	0.17†	20.9	19.6
SSGA SMALL CAP	D	Small-cap Blend	C–	346.0	–24	No load‡	1.07†	3.6	3.6
STATE ST. RESEARCH CAPITAL A	D	Mid-cap Growth	F	410.0	3	5.75	1.39†	32.0	30.7
STATE ST. RESEARCH INVESTMENT B	B	Large-cap Blend	C	1070.6	14	5.00**	1.64†	19.0	17.6
STATE ST. RESEARCH STR. GR. & INC. B (ddddd)	C	Domestic Hybrid	D	348.0	–3	5.00**	2.03†	12.1	11.1
STEIN ROE CAPITAL OPPORTUNITIES	D	Mid-cap Growth	D	453.3	–36	No load	1.19	40.3	37.2
STEIN ROE DISCIPLINED STOCK (eeeee)	C–	Mid-cap Blend	D	557.0	–35	No load	1.07	10.5	5.4
STEIN ROE GROWTH & INCOME	B+	Large-cap Blend	C	387.5	–7	No load	1.02	11.1	9.9
STEIN ROE GROWTH STOCK	B+	Large-cap Growth	B	920.0	21	No load‡	0.94	36.6	34.9
STEIN ROE YOUNG INVESTOR	B	Large-cap Growth	C	1015.0	24	No load	1.18	32.7	32.7
STI CLASSIC CAPITAL APPREC. INV. (fffff)	B	Large-cap Blend	C	300.3	2	3.75	1.81†	9.1	6.9
STRONG ASSET ALLOCATION	B+	Domestic Hybrid	C	347.8	9	No load	1.00	15.5	13.8
STRONG BLUE CHIP 100		Large-cap Growth		503.2	235	No load	0.60	38.9	38.9
STRONG COMMON STOCK	C	Mid-cap Blend	B	1601.1	11	No load‡	1.20	40.4	35.1
STRONG ENTERPRISE		Mid-cap Growth		388.6	NM	No load	2.00	187.8	185.3
STRONG GROWTH	C	Mid-cap Growth	B	2653.4	45	No load	1.30	75.1	69.9
STRONG GROWTH & INCOME		Large-cap Blend		908.5	88	No load	1.10	32.2	32.2
STRONG GROWTH 20		Large-cap Growth		342.2	381	No load	1.50	109.5	106.1
STRONG OPPORTUNITY	B	Mid-cap Value	A	2370.6	16	No load	1.20	33.4	29.1
STRONG SCHAFER VALUE	D	Mid-cap Value	D	616.8	–60	No load	1.20	–16.4	–16.6
STRONG TOTAL RETURN	B+	Large-cap Growth	B+	1339.2	31	No load	1.00	59.8	54.1
STYLE SELECT FOCUS II		Large-cap Growth		319.9	502	2.00**	2.10†	57.6	57.5
SUNAMERICA BALANCED ASSETS A	B+	Domestic Hybrid	C	276.1	25	5.75	1.46†	21.7	18.9
T. ROWE PRICE BALANCED	A	Domestic Hybrid	B+	2063.9	25	No load	0.78	10.3	9.1
T. ROWE PRICE BLUE CHIP GROWTH	A	Large-cap Blend	A	6325.3	46	No load	0.91	20.0	19.7
T. ROWE PRICE CAPITAL APPRECIATION	B+	Domestic Hybrid	B+	890.6	–11	No load	0.62	7.1	3.9
T. ROWE PRICE DIVIDEND GROWTH	B+	Large-cap Blend	C	1126.9	–16	No load	0.77	–2.8	–4.2
T. ROWE PRICE EQUITY INDEX 500	A	Large-cap Blend	B+	4759.9	42	0.50*	0.40	20.6	20.1
T. ROWE PRICE EQUITY-INCOME	B	Large-cap Value	B+	12774.7	–5	No load	0.77	3.8	1.6
T. ROWE PRICE EUROPEAN STOCK	B+	Europe	B+	1438.1	–7	No load	1.05	19.7	17.6
T. ROWE PRICE GROWTH & INCOME	B	Large-cap Blend	C–	3465.7	–3	No load	0.77	3.8	1.3
T. ROWE PRICE GROWTH STOCK	B+	Large-cap Blend	B	5307.8	5	No load	0.74	22.2	18.3

*Includes redemption fee. **Includes deferred sales charge. †12(b)-1 plan in effect. ‡Not currently accepting new accounts. §Less than 0.5% of assets. NA=Not available. NM=Not mean
(ccccc) Formerly SouthTrust Core Equity. (ddddd) Formerly State Street Research Managed Assets B. (eeeee) Formerly Stein Roe Special. (fffff) Formerly STI Classic Capital Growth I

E ANNUAL TOTAL RETURNS (%)					HISTORY	PORTFOLIO DATA						RISK					TELEPHONE
RS ERTAX	5 YEARS PRETAX	5 YEARS AFTERTAX	10 YEARS PRETAX	10 YEARS AFTERTAX	RESULTS VS ALL FUNDS	TURNOVER	CASH %	FOREIGN %	P-E RATIO	UNTAXED GAINS (%)	LARGEST HOLDING COMPANY (% ASSETS)	LEVEL	BEST QTR	BEST %RET	WORST QTR	WORST %RET	
0.4	25.3	23.0	17.2	14.3	2 2 1 2	Average	6	5	35	47	Microsoft (3)	Low	IV 98	20.9	III 98	–11.2	800-888-2461
6.5	28.3	27.2	17.9	16.5	2 3 1 1	Very low	1	2	35	49	Microsoft (4)	Low	IV 98	21.3	III 98	–10.0	800-342-5734
5.0	33.1	31.8	NA	NA	1 1	Average	2	2	45	39	Microsoft (5)	Average	IV 98	29.3	III 98	–11.6	800-342-5734
4.7	21.5	19.1	12.9	10.7	3 4 1 3	Average	3	1	23	13	Dow Chemical (3)	Average	IV 98	16.6	III 98	–13.6	800-342-5734
5.1	27.3	23.6	NA	NA	1 2 1	High	4	3	34	40	Concentric Net (1)	Very high	IV 99	45.1	III 98	–24.1	800-342-5734
5.5	12.0	10.4	NA	NA	2 4	Average	6	1	18	-2	Lone Star Industries (2)	High	II 97	16.3	III 98	–19.8	800-342-5734
3.0	28.2	26.7	18.1	15.7	1 4 1 2	Low	5	3	30	46	American Express (6)	Average	IV 98	22.2	III 98	–14.8	800-243-1575
7.6	28.6	25.3	19.6	16.4	1 4 2 1	High	10	3	40	50	Circuit City Stores (4)	High	IV 99	43.0	III 98	–20.2	800-221-2783
1.4	17.4	14.1	12.7	9.8	2 4 2 3	Average	3	4	30	23	General Electric (4)	Average	II 97	15.4	III 99	–10.2	800-221-2783
8.0	35.8	32.3	29.9	26.0	2 1 2 1	High	2	5	45	46	AmFm (4)	Very high	IV 98	45.1	III 98	–16.6	800-221-2783
4.9	26.5	23.4	17.1	13.9	3 3 2 1	Average	5	3	46	38	Microsoft (5)	Average	IV 98	24.2	III 98	–9.6	800-221-2783
3.6	39.3	36.9	NA	NA	1 1	Average	7	46	43	63	Microsoft (3)	High	IV 99	55.7	III 98	–16.7	800-221-2450
8.4	13.7	11.5	10.4	8.4	2 4 3 3	Average	4	3	28	29	Enron (2)	Low	IV 98	9.9	III 99	–6.0	800-282-3863
2.2	19.6	16.5	13.5	11.0	2 4 1 3	Low	4	1	28	51	Enron (3)	Average	IV 98	16.5	III 98	–11.7	800-282-3863
6.4	22.7	21.5	16.7	14.9	1 2 1 3	Low	18	NA	21	60	Berkshire Hathaway Cl. A (30)	High	II 97	21.5	III 99	–14.4	800-686-6884
9.0	21.6	17.4	15.7	12.6	2 2 1 4	Low	10	NA	18	37	Chase Manhattan (6)	High	IV 98	19.6	III 98	–18.2	800-524-7433
25.9	28.4	24.5	19.6	17.1	1 2 2 1	Average	8	8	50	57	Legato Systems (6)	High	IV 99	46.0	III 98	–19.1	800-332-5580
1.4	10.1	7.6	14.1	11.0	1 1 2 4	Average	6	NA	15	-6	New England Busn. Svc. (3)	High	II 97	19.3	III 98	–20.5	800-458-5222
20.5	21.7	19.3	NA	NA	1 3 2	Average	8	43	35	30	PMC Sierra (3)	Average	IV 99	34.6	III 98	–19.9	800-421-4120
10.9	31.7	30.4	20.5	19.4	3 1 3 1	Very low	1	2	44	62	Tyco International (9)	High	IV 98	37.5	III 98	–12.2	800-451-2010
7.5	22.0	18.7	14.6	12.3	2 4 2 2	Average	17	4	35	34	Berkshire Hathaway Cl. A (4)	Low	IV 98	17.9	III 98	–9.5	800-451-2010
0.0	14.7	11.3	10.4	7.5	2 4 4 2	High	0	5	34	-35	Chase Manhattan (3)	Low	IV 98	14.4	III 98	–7.9	800-451-2010
13.0	NA	NA	NA	NA	3	Low	1	0	26	19	Concert Invmt. Peach Gr. Y (10)			NA		NA	800-451-2010
17.1	NA	NA	NA	NA	2	Low	5	0	26	25	Smith Barney Small Cap. Blend (19)			NA		NA	800-451-2010
18.6	19.6	17.4	NA	NA	3 2	Average	2	5	32	33	IBM (3)	Very low	IV 98	19.3	III 98	–7.5	800-451-2010
18.1	20.8	19.2	NA	NA	3 2	Low	10	5	34	48	Adobe Systems (7)	Low	IV 98	18.2	III 98	–10.1	800-451-2010
21.6	16.3	15.9	13.7	12.9	2 1 4 2	Low	1	100	42	55	NTT Data (5)	Average	IV 99	43.0	III 98	–17.6	800-451-2010
NA	NA	NA	NA	NA		Very low	1	NA	42	29	Intel (7)			NA		NA	800-451-2010
11.3	17.5	14.7	11.8	9.2	3 4 2 3	Average	0	1	28	30	Enron (5)	Average	II 97	15.3	III 98	–11.8	800-451-2010
8.2	15.1	12.1	13.1	10.2	1 3 3 3	Low	10	14	25	18	SLM Hldg. (4)	Very low	II 97	10.2	III 98	–9.9	800-451-2010
6.2	11.1	8.6	10.7	8.6	2 2 4 4	Very low	6	69	24	18	Buderus (3)	Very low	II 99	9.2	III 98	–11.0	800-334-2143
9.5	12.5	10.1	NA	NA	4 3	Very low	5	97	23	8	Buderus (4)	Low	II 99	15.3	III 98	–13.8	800-334-2143
12.1	19.8	18.0	14.8	12.7	3 2 1 4	Low	4	6	22	11	Fannie Mae (4)	Average	IV 98	16.3	III 98	–14.5	800-551-1980
12.6	20.8	18.1	NA	NA	4 1 3	High	4	2	25	27	Sun Microsystems (4)	Average	IV 98	23.9	III 98	–17.0	800-225-5782
45.8	41.1	36.6	29.2	23.3	1 1 1 1	Very high	10	2	52	45	America Online (5)	High	IV 99	44.3	III 98	–10.7	800-711-6141
7.2	6.0	5.2	NA	NA	4 4	Low	2	98	24	4	Samsung Electronics (4)	Very high	IV 99	26.0	IV 97	–21.4	800-647-7327
27.9	28.5	26.2	NA	NA	1 1	Average	2	NA	38	26	Wal-Mart Stores (4)	Low	IV 98	23.8	III 98	–8.1	800-647-7327
18.1	24.5	19.6	NA	NA	2 1 2	High	1	NA	35	10	Microsoft (5)	Average	IV 98	22.4	III 98	–13.9	800-647-7327
24.7	28.3	25.7	NA	NA	1 1	Low	1	3	37	31	Microsoft (4)	Low	IV 98	21.2	III 98	–10.0	800-647-7327
5.1	16.7	15.6	NA	NA	2 1 4	High	1	NA	25	-7	Lattice Semicon. (2)	High	IV 98	19.7	III 98	–27.2	800-647-7327
15.6	17.8	16.4	NA	NA	4 2	Average	1	3	42	40	AmFm (3)	High	IV 99	33.9	III 98	–22.1	800-882-0052
22.7	25.3	21.8	NA	NA	1 2	Low	-9	8	40	43	Tyco International (4)	Average	IV 98	20.3	III 98	–10.7	800-882-0052
9.3	15.1	12.7	NA	NA	3 3	High	3	18	33	14	Valassis Comms. (1)	Low	IV 99	10.9	III 98	–9.3	800-882-0052
12.7	21.6	20.7	14.9	14.4	4 1 2 2	Average	3	1	44	58	Hispanic Brdcstg. Cl. A (4)	High	IV 99	43.8	III 98	–25.1	800-338-2550
3.5	11.8	8.3	11.3	8.4	2 1 3 4	Average	18	6	21	33	AVX (4)	High	II 99	20.9	III 98	–18.1	800-338-2550
17.4	21.5	19.6	15.6	13.7	2 2 2 2	Very low	15	5	29	49	IBM (4)	Low	IV 98	17.9	III 98	–11.7	800-338-2550
30.1	29.9	27.9	19.3	17.0	1 4 1 1	Average	4	NA	46	70	Cisco Systems (6)	Average	IV 99	25.4	III 98	–15.1	800-338-2550
25.1	30.1	29.3	NA	NA	1 1	Average	1	2	44	41	Cisco Systems (4)	Average	IV 99	29.4	III 98	–16.5	800-338-2550
18.1	23.0	19.0	NA	NA	4 1 2	Very high	8	2	33	25	General Electric (4)	Low	IV 98	22.8	III 98	–11.3	800-428-6970
15.4	17.1	14.2	12.2	9.4	3 3 4 2	Very high	9	4	40	30	General Electric (3)	Very low	IV 98	15.9	III 98	–8.2	800-368-1030
NA	NA	NA	NA	NA	1	Average	2	0	44	21	Applied Materials (5)			NA		NA	414-359-1400
19.0	24.2	19.9	21.6	18.2	1 1 2 2	High	10	9	30	41	US Cellular (2)	Average	IV 99	25.3	III 98	–16.5	800-368-1030
NA	NA	NA	NA	NA			5	6	55	34	Vignette (5)			NA		NA	800-368-3863
34.8	34.9	32.4	NA	NA	1 1	Very high	8	3	52	56	Cisco Systems (5)	High	IV 99	54.9	III 98	–12.7	800-368-1030
31.2	NA	NA	NA	NA	1	High	0	6	43	34	Tyco International (5)			NA		NA	800-368-1030
NA	NA	NA	NA	NA	1	Very high	12	NA	56	37	Cisco Systems (8)			NA		NA	800-368-1030
20.0	23.4	19.8	17.2	14.9	3 1 3 1	Average	16	6	33	42	US Cellular (2)	Low	IV 98	17.5	III 98	–14.1	800-368-1030
–0.2	10.8	10.0	11.5	9.5	1 2 1 4	Low	0	13	17	-29	Mellon Bank (3)	High	IV 98	19.7	III 98	–24.5	800-368-1030
33.0	30.6	26.1	19.1	16.5	3 2 3 1	Very high	3	9	50	51	Cisco Systems (5)	Average	IV 99	42.2	III 98	–7.2	800-368-1030
NA	NA	NA	NA	NA			NA	11	48	24	EMC (10)			NA		NA	800-858-8850
20.1	20.9	17.8	NA	NA	3 2	Average	3	2	41	30	Microsoft (3)	Low	IV 98	15.6	III 98	–6.0	800-858-8850
13.8	16.8	15.4	13.0	11.1	2 3 3 3	Very low	4	20	34	28	General Electric (2)	Very low	IV 98	12.2	III 98	–6.5	800-638-5660
25.1	28.3	27.9	NA	NA	1 2	Low	4	4	40	29	Tyco International (4)	Low	IV 98	24.7	III 98	–12.1	800-638-5660
6.0	13.5	10.1	11.5	8.7	2 2 3 4	Average	5	13	27	14	Amerada Hess (5)	Very low	II 99	10.5	III 98	–3.0	800-638-5660
11.8	19.3	17.4	NA	NA	1 3	Low	10	10	26	15	Mobil (2)	Low	IV 98	13.1	III 99	–8.3	800-638-5660
26.5	28.2	27.2	NA	NA	3 1 2	Very low	0	3	37	34	Microsoft (4)	Low	IV 98	21.3	III 98	–10.0	800-638-5660
10.9	18.6	16.0	14.1	11.7	2 2 1 3	Low	4	6	26	28	SBC Communications (2)	Low	II 99	13.3	III 99	–8.5	800-638-5660
18.5	22.0	20.2	NA	NA	3 3 2	Low	1	100	31	35	Natl. Westminster Bank (4)	Low	IV 99	20.5	III 98	–14.0	800-638-5660
9.9	18.3	16.0	13.4	11.4	3 2 1 3	Low	4	7	28	35	BP Amoco ADR (3)	Low	II 97	12.9	III 98	–9.6	800-638-5660
21.7	25.7	22.5	17.4	14.8	3 2 2 1	Average	5	12	38	55	Tyco International (3)	Low	IV 98	23.1	III 98	–11.4	800-638-5660

DATA: MORNINGSTAR, INC., CHICAGO, IL.

MUTUAL FUND SCOREBOARD

FUND	OVERALL RATING (COMPARES RISK-ADJUSTED PERFORMANCE OF EACH FUND AGAINST ALL FUNDS)	CATEGORY	RATING (COMPARES RISK-ADJUSTED PERFORMANCE OF FUND WITHIN CATEGORY)	SIZE ASSETS $MIL.	% CHG. 1998-99	FEES SALES CHARGE (%)	EXPENSE RATIO (%)	1999 RETURNS PRE-TAX	AFTER-TAX
T. ROWE PRICE HEALTH SCIENCE		Health		293.0	–7	No load	1.16	8.0	6.0
T. ROWE PRICE INTL. DISCOVERY	C	Foreign	B	511.6	165	2.00*	1.47	155.0	149.1
T. ROWE PRICE INTL. STOCK	C	Foreign	B	11327.7	12	No load	0.85	34.6	33.0
T. ROWE PRICE JAPAN	D	Japan	C–	513.7	184	No load	1.32	112.7	112.5
T. ROWE PRICE MEDIA & TELECOMM.	B+	Communications	C	718.7	192	No load	1.03	93.1	89.4
T. ROWE PRICE MID-CAP GROWTH	C	Mid-cap Growth	B+	4714.3	42	No load	0.91	23.8	22.4
T. ROWE PRICE NEW AMERICA GROWTH	C	Mid-cap Growth	B	1962.2	–5	No load	0.95	12.8	10.3
T. ROWE PRICE NEW ASIA	F	Pacific/Asia ex-Japan Stock	B	1151.6	85	No load	1.29	99.9	99.6
T. ROWE PRICE NEW ERA	D	Natural Resources	A	1074.6	8	No load	0.75	21.2	18.6
T. ROWE PRICE NEW HORIZONS	C–	Small-cap Growth	B	5252.4	0	No load‡	0.89	32.5	29.1
T. ROWE PRICE PERS. STRAT. BALANCED	B+	Domestic Hybrid	B	604.0	43	No load	1.00	8.0	6.4
T. ROWE PRICE SCIENCE & TECHNOLOGY	C	Technology	C	10020.7	113	No load	0.94	101.0	93.5
T. ROWE PRICE SMALL-CAP STOCK	C–	Small-cap Blend	B	1591.5	38	No load	1.01	14.7	13.4
T. ROWE PRICE SMALL-CAP VALUE	C–	Small-cap Value	B	1278.0	–22	1.00*	0.87	1.2	–0.6
T. ROWE PRICE SPECTRUM GROWTH	B	Large-cap Blend	C–	2835.5	2	No load	0.00	21.2	18.2
T. ROWE PRICE VALUE	B	Mid-cap Value	B+	865.1	12	No load	0.98	9.2	5.5
TEMPLETON CAPITAL ACCUMULTOR	C	World	C	294.4	24	9.00	1.11	29.2	27.5
TEMPLETON DEVELOPING MKTS. A (ggggg)	F	Diversified Emerging Mkts.	C	2601.1	19	5.75	2.11†	51.6	51.6
TEMPLETON FOREIGN A (hhhhh)	C–	Foreign	C	12197.5	12	5.75	1.13†	39.2	37.6
TEMPLETON GLOBAL OPPORTUNITIES A (iiiii)	C–	World	C–	652.9	–1	5.75	1.41†	27.2	24.8
TEMPLETON GLOBAL SMALL CO. A (jjjjj)	D	World	D	1011.1	–20	5.75	1.39†	10.1	8.1
TEMPLETON GROWTH A (kkkkk)	C	World	C	13408.4	10	5.75	1.12†	30.4	28.3
TEMPLETON WORLD A (lllll)	C	World	C	8896.4	2	5.75	1.04†	28.1	25.7
THIRD AVENUE VALUE	C	Small-cap Value	A	1313.5	–18	No load	1.08	12.8	12.6
THORNBURG VALUE A		Mid-cap Blend		438.4	87	4.50	1.61†	37.4	36.7
TIAA-CREF GROWTH & INCOME		Large-cap Blend		372.8	60	No load	0.43	24.5	23.2
TIAA-CREF GROWTH EQUITY		Large-cap Growth		443.7	50	No load	0.45	33.0	31.5
TORRAY	B+	Large-cap Value	B+	1895.6	30	No load	1.09	24.0	23.5
TRANSAMERICA PREM. EQUITY INV.		Large-cap Growth		322.7	11	No load	1.42†	33.3	32.4
TURNER SMALL CAP GROWTH	C–	Small-cap Growth	B+	321.3	70	No load‡	1.25	85.0	76.9
TWEEDY, BROWNE AMERICAN VALUE	B	Mid-cap Value	B+	1090.4	–6	No load	1.39	2.0	1.1
TWEEDY, BROWNE GLOBAL VALUE	B	World	B+	3132.6	26	No load	1.41	25.3	24.1
UMB SCOUT WORLDWIDE	A	Foreign	A	268.0	148	No load	0.86	31.4	30.5
UNITED ACCUMULATIVE A	B	Large-cap Blend	C–	2049.1	10	5.75	0.88†	25.7	21.0
UNITED CONTINENTAL INCOME A	B	Domestic Hybrid	C–	584.0	–1	5.75	0.99†	11.1	8.0
UNITED INCOME A	B	Large-cap Blend	C	7807.2	6	5.75	0.89†	16.4	14.6
UNITED INTERNATIONAL GROWTH A	C	Foreign	B+	1590.6	31	5.75	1.30†	57.0	53.4
UNITED NEW CONCEPTS A	C	Mid-cap Growth	B	1462.4	55	5.75	1.29†	63.4	60.1
UNITED RETIREMENT SHARES A	A	Domestic Hybrid	B+	1049.8	28	5.75	0.99†	43.7	38.0
UNITED SCIENCE & TECHNOLOGY A	C	Technology	B	2942.5	76	5.75	1.05†	102.9	99.5
UNITED VANGUARD A	C	Large-cap Growth	D	2200.3	26	5.75	1.10†	43.9	41.8
USAA AGGRESSIVE GROWTH	C–	Small-cap Growth	B	1317.5	58	No load	0.72	91.1	88.5
USAA CORNERSTONE STRATEGY	B	Mid-cap Value	B+	1170.3	–14	No load	1.05	8.1	5.9
USAA EMERGING MARKETS	F	Diversified Emerging Mkts.	C	287.7	23	No load	1.27	52.4	52.1
USAA GROWTH	C	Large-cap Blend	F	1752.5	13	No load	0.97	21.7	18.9
USAA GROWTH & INCOME	C	Large-cap Value	C	1121.7	6	No load	0.89	14.3	13.1
USAA GROWTH & TAX STRATEGY	B+	Domestic Hybrid	B	261.0	10	No load	0.69	9.3	8.4
USAA GROWTH STRATEGY		Mid-cap Growth		287.7	12	No load	1.28	20.9	18.4
USAA INCOME STOCK	C	Large-cap Value	C	2343.6	–6	No load	0.65	2.5	–0.3
USAA INTERNATIONAL	C–	Foreign	C–	559.7	5	No load	1.12	28.7	26.9
USAA S&P 500 INDEX		Large-cap Blend		3082.2	66	No load	0.18	20.7	20.2
USAA SCIENCE & TECHNOLOGY		Technology		359.7	125	No load	1.33	47.0	46.4
USAA WORLD GROWTH	C	World	C	366.1	12	No load	1.16	30.7	28.4
VALUE LINE	C	Large-cap Growth	C–	494.6	18	No load	0.77	26.7	24.5
VALUE LINE ASSET ALLOCATION	A	Domestic Hybrid	A	289.5	66	No load	1.08†	19.9	17.6
VALUE LINE LEVERAGED GROWTH INV.	C	Large-cap Growth	C–	762.4	25	No load	0.84	31.0	28.7
VALUE LINE SPECIAL SITUATIONS	B	Mid-cap Growth	B+	345.3	82	No load	1.02	61.7	59.4
VAN KAMPEN AGGRESSIVE GROWTH A		Small-cap Growth		637.7	328	5.75	1.56†	130.6	127.1
VAN KAMPEN AMERICAN VALUE A	C	Small-cap Blend	A	433.6	96	5.75‡	1.49†	25.7	23.2
VAN KAMPEN COMSTOCK A	B	Mid-cap Value	B+	1797.4	2	5.75	0.91†	2.4	–0.9
VAN KAMPEN EMERG. GROWTH A	B	Mid-cap Growth	B+	5768.2	93	5.75	0.97†	103.7	99.3
VAN KAMPEN ENTERPRISE A	C	Large-cap Growth	C–	2598.4	22	5.75	0.94†	26.5	23.2
VAN KAMPEN EQUITY-INCOME B	B+	Domestic Hybrid	B	1148.8	1	5.00**	1.62†	9.2	6.3
VAN KAMPEN GLOBAL EQUITY ALLOC. A	C	World	B	277.4	15	5.75	1.70†	23.5	21.6
VAN KAMPEN GLOBAL EQUITY B		World		531.0	–17	5.00**	2.45†	2.6	1.3
VAN KAMPEN GROWTH & INCOME A	B	Large-cap Value	B+	1018.4	10	5.75	0.92†	12.7	8.9
VAN KAMPEN PACE A	B	Large-cap Blend	C–	3852.6	3	5.75	0.83†	13.9	10.0
VAN WAGONER EMERGING GROWTH		Small-cap Blend		1335.5	605	No load‡	1.95†	291.2	291.2
VAN WAGONER MICRO-CAP		Small-cap Growth		291.7	533	No load‡	1.95†	207.9	207.9
VAN WAGONER POST-VENTURE		Small-cap Growth		298.6	NM	No load	1.95†	237.2	230.4

*Includes redemption fee. **Includes deferred sales charge. †12(b)-1 plan in effect. ‡Not currently accepting new accounts. §Less than 0.5% of assets. NA=Not available. NM=Not mea
(ggggg) Formerly Templeton Developing Markets I. (hhhhh) Formerly Templeton Foreign I. (iiiii) Formerly Templeton Global Opportunities I. (jjjjj) Formerly Templeton Global Smaller
(kkkkk) Formerly Templeton Growth I. (lllll) Formerly Templeton World I.

E ANNUAL TOTAL RETURNS (%)					HISTORY	PORTFOLIO DATA						RISK					TELEPHONE
ARS	5 YEARS		10 YEARS		RESULTS VS	TURNOVER	CASH	FOREIGN	P-E	UNTAXED	LARGEST HOLDING	LEVEL	BEST		WORST		
TERTAX	PRETAX	AFTERTAX	PRETAX	AFTERTAX	ALL FUNDS		%	%	RATIO	GAINS (%)	COMPANY (% ASSETS)		QTR	%RET	QTR	%RET	
14.5	NA	NA	NA	NA	3	Average	5	10	36	27	Bristol-Myers Squibb (7)			NA		NA	800-638-5660
35.3	22.7	21.8	13.0	12.2	4 3 4 1	Low	2	87	36	58	Zee Telefilms (2)	Average	IV 99	57.2	III 98	-17.5	800-638-5660
15.7	15.7	14.5	11.4	10.0	4 2 4 2	Very low	1	100	34	40	Natl. Westminster Bank (3)	Average	IV 99	24.7	III 98	-13.7	800-638-5660
21.8	9.3	9.3	NA	NA	2 4 2	Average	13	99	43	32	NTT Mobile Comms. (4)	Very high	IV 98	25.2	IV 97	-20.6	800-638-5660
46.8	37.3	33.8	NA	NA	3 1	Average	3	5	47	46	AmFm (4)	High	IV 99	41.6	III 98	-18.6	800-638-5660
20.6	25.8	24.8	NA	NA	1 1 2	Average	9	4	30	28	Voicestream Wireless (3)	Average	IV 98	26.8	III 98	-17.5	800-638-5660
15.2	22.8	20.5	16.8	15.3	3 3 1 2	Average	0	3	31	48	AT&T Liberty Media Cl. A (3)	High	IV 98	27.7	III 98	-21.3	800-638-5660
3.4	5.6	5.3	NA	NA	1 4 4	Average	7	97	36	2	Samsung Electronics (8)	Very high	IV 99	42.0	IV 97	-27.1	800-638-5660
3.7	12.7	9.9	9.0	6.5	4 2 3 4	Low	2	17	40	34	Wal-Mart Stores (5)	High	II 99	15.0	III 98	-12.4	800-638-5660
14.0	23.0	20.4	18.0	15.2	1 1 1 1	Low	4	4	34	48	Adobe Systems (2)	High	IV 99	28.5	III 98	-21.0	800-638-5660
11.5	16.2	14.5	NA	NA	3 2	Low	5	30	32	12	BP Amoco ADR (1)	Very low	IV 98	11.2	III 98	-6.6	800-638-5660
39.6	38.9	35.0	30.2	27.3	1 1 2 1	High	2	9	52	58	Microsoft (4)	High	IV 98	47.9	III 98	-17.3	800-638-5660
11.4	18.2	16.0	13.1	10.3	4 1 2 3	Low	9	3	24	14	AO Smith (2)	Average	II 97	15.5	III 98	-19.4	800-638-5660
2.5	12.8	11.0	12.3	10.7	3 1 2 4	Low	3	1	17	20	Insituform Tech. Cl. A (3)	Average	II 99	16.7	III 98	-20.2	800-638-5660
14.8	20.4	17.8	NA	NA	1 2 2	Low	4	NA	32	33	T. Rowe Price International (25)	Low	IV 98	18.6	III 98	-13.4	800-638-5660
11.6	22.1	19.0	NA	NA	1 3	Average	4	10	25	7	Sprint (FON Group) (2)	Low	II 99	15.0	III 98	-13.4	800-638-5660
14.5	17.1	15.8	NA	NA	1 3 3	Very low	8	80	23	23	Kookmin Bank (2)	Average	IV 99	17.4	III 98	-17.0	800-342-5236
3.0	6.5	5.6	NA	NA	1 4 4	Low	-1	98	21	-15	Telefonos de Mex. L ADR (4)	Very high	IV 99	26.5	IV 97	-24.9	800-342-5236
9.8	13.1	10.9	11.3	9.1	2 2 4 3	Low	13	99	22	7	Sony (3)	Average	II 99	15.6	III 98	-17.2	800-342-5236
11.1	15.2	13.1	NA	NA	2 3 3	Very low	15	82	26	30	Nokia (3)	Average	IV 99	19.9	III 98	-15.7	800-342-5236
-0.1	8.4	5.8	8.7	5.8	2 2 3 4	Very low	7	75	18	6	Li & Fung (2)	Average	II 99	10.9	III 98	-20.3	800-342-5236
10.8	16.4	13.2	13.5	10.3	2 2 3 3	Low	9	75	24	7	Sony (3)	Average	II 99	13.4	III 98	-15.2	800-342-5236
14.5	19.0	15.6	13.8	10.2	4 1 2 3	Low	14	74	25	19	Cheung Kong Hldgs. (3)	Average	IV 98	15.3	III 98	-14.1	800-342-5236
12.8	18.5	17.8	NA	NA	1 1 3	Low	6	18	36	32	Electro Scientific Inds. (7)	Average	IV 98	16.7	III 98	-14.3	800-443-1021
29.7	NA	NA	NA	NA	1	High	1	18	33	24	Nortel Networks (5)			NA		NA	800-847-0200
NA	NA	NA	NA	NA		Average	1	7	36	22	Microsoft (4)			NA		NA	800-223-1200
NA	NA	NA	NA	NA		Average	3	2	42	28	Microsoft (5)			NA		NA	800-223-1200
22.1	29.0	28.3	NA	NA	3 1 2	Low	1	3	29	22	General Motors Cl. H (6)	Average	IV 98	21.3	III 98	-21.3	800-443-3036
37.7	NA	NA	NA	NA	1	Average	2	2	49	41	EMC (8)			NA		NA	800-892-7587
30.0	38.0	35.9	NA	NA	1 1	High	3	4	34	45	ANTEC (1)	High	IV 99	44.6	III 98	-24.3	800-224-6312
15.0	21.0	20.1	NA	NA	1 3	Very low	4	18	18	24	Pharmacia & Upjohn (Dep) (5)	Low	II 97	15.7	III 98	-14.6	800-432-4789
17.6	17.9	16.1	NA	NA	3 2	Low	3	86	24	29	Nestle (Reg.) (3)	Low	IV 98	16.2	III 98	-17.9	800-432-4789
21.6	20.0	19.1	NA	NA	3 2	Very low	12	99	32	22	Aegon (3)	Very low	IV 99	16.1	III 98	-13.2	800-996-2862
19.8	24.7	19.3	15.4	11.4	4 3 2 2	Very high	4	6	26	24	Media One Group (4)	Average	IV 99	24.9	III 99	-8.5	800-366-5465
10.0	14.5	11.5	11.2	8.9	5 5 5 5	Average	2	3	32	23	Hartford Finl. Svcs. Group (2)	Very low	II 97	9.5	III 98	-6.0	800-366-5465
19.2	23.5	20.7	16.1	14.0	2 3 1 2	Average	2	8	36	45	General Electric (3)	Low	II 97	18.7	III 98	-7.3	800-366-5465
26.5	23.4	20.1	15.8	13.4	4 1 4 1	High	6	92	35	48	Telefonica (3)	Average	IV 99	46.7	III 98	-17.3	800-366-5465
34.9	30.0	27.5	24.8	23.2	1 1 4 1	Average	23	6	38	58	America Online (5)	High	IV 99	46.2	III 98	-15.9	800-366-5465
19.5	20.5	17.1	14.9	12.2	3 3 3 2	High	3	4	39	29	Exxon (2)	Very low	IV 99	28.9	III 98	-5.8	800-366-5465
47.8	42.4	39.5	26.4	23.9	2 1 2 1	Average	8	3	49	72	America Online (5)	High	IV 99	61.7	I 97	-15.2	800-366-5465
28.1	24.9	21.4	16.7	14.2	4 1 3 1	Average	1	5	40	51	Applied Materials (4)	Average	IV 99	31.1	III 98	-9.5	800-366-5465
33.2	34.5	32.2	20.6	18.6	3 2 2 1	Low	2	3	46	56	MedImmune (3)	High	IV 99	51.2	III 98	-22.4	800-382-8722
6.1	12.2	10.0	9.4	7.5	4 2 3 4	Average	1	36	27	17	Bristol-Myers Squibb (1)	Low	II 97	8.5	III 98	-10.7	800-382-8722
2.5	5.6	4.9	NA	NA	4 4	Average	4	96	25	-19	DBS Group Hldgs. (3)	Very high	IV 99	26.8	III 98	-26.1	800-382-8722
16.3	21.0	17.8	15.0	12.2	2 3 2 2	Low	1	3	35	25	Microsoft (3)	Average	IV 98	26.1	IV 97	-16.1	800-382-8722
13.9	20.0	18.5	NA	NA	1 3	Low	2	2	29	25	Bell Atlantic (3)	Average	IV 98	17.5	III 98	-17.5	800-382-8722
10.6	14.1	12.5	10.1	8.9	3 4 4 3	Average	1	1	40	25	Cisco Systems (4)	Very low	IV 98	8.6	III 98	-3.9	800-382-8722
13.4	NA	NA	NA	NA	3	Low	2	26	34	20	Harmonic (1)			NA		NA	800-382-8722
9.4	16.5	13.7	12.4	10.0	2 2 3 5	Low	4	8	24	24	Bristol-Myers Squibb (4)	Low	II 99	11.1	III 98	-8.1	800-382-8722
11.8	13.5	12.2	10.7	9.7	4 1 4 3	Low	0	100	29	32	Nokia Cl. A ADR (3)	Average	IV 98	16.8	III 98	-20.2	800-382-8722
26.8	NA	NA	NA	NA	1	Very low	1	2	34	22	Microsoft (3)			NA		NA	800-382-8722
NA	NA	NA	NA	NA		Low	7	6	44	34	America Online (4)			NA		NA	800-382-8722
16.0	17.0	15.3	NA	NA	3 3	Average	3	63	35	39	Nokia Cl. A ADR (2)	Average	IV 98	20.6	III 98	-19.0	800-382-8722
20.4	24.6	21.7	17.1	14.0	1 3 2 2	Average	3	NA	42	54	EMC (4)	Average	IV 98	23.9	III 98	-13.2	800-223-0818
20.1	25.8	22.3	NA	NA	1 2	High	21	3	41	27	Wal-Mart Stores (1)	Very low	IV 98	24.6	III 98	-12.8	800-223-0818
29.6	30.6	27.9	19.6	16.8	3 2 1 1	Average	1	NA	44	69	EMC (5)	High	IV 98	31.0	III 98	-13.3	800-223-0818
37.5	30.9	25.5	18.8	15.6	4 2 3 1	Very high	9	3	37	38	Boston Scientific (3)	Average	IV 99	38.2	III 98	-15.3	800-223-0818
51.1	NA	NA	NA	NA	1	Very high	4	5	53	44	SDL (3)			NA		NA	800-421-5666
21.3	22.4	20.2	NA	NA	3 2	Very high	11	5	24	8	Bally Total Fitness Hldg. (2)	Average	II 99	21.3	III 98	-15.8	800-421-5666
12.3	21.6	16.4	14.3	9.9	2 4 1 2	High	6	7	24	15	Tenet Healthcare (4)	Low	IV 98	14.8	III 99	-10.1	800-421-5666
46.7	41.5	38.8	27.9	25.6	1 1 1 1	High	0	5	54	63	JDS Uniphase (4)	High	IV 99	61.3	III 98	-12.8	800-421-5666
23.6	27.1	23.9	18.4	15.1	2 2 1 1	Average	1	4	46	44	Cisco Systems (4)	Average	IV 98	24.6	III 98	-15.1	800-421-5666
13.0	18.7	15.8	NA	NA	3 3 3	Average	2	14	31	24	Minnesota Mng. & Mfg. (2)	Low	II 97	12.6	III 98	-8.0	800-421-5666
17.3	18.3	15.9	NA	NA	3 2	Average	10	49	32	23	Topix Index (Fut.) (3)	Low	IV 99	18.1	III 98	-11.5	800-282-4404
NA	NA	NA	NA	NA			2	65	24	10	Richemont Cl. A (Unit) (4)			NA		NA	800-282-4404
15.2	21.6	18.4	15.2	12.2	2 3 1 2	Average	3	14	32	28	Minnesota Mng. & Mfg. (3)	Low	IV 98	15.9	III 98	-11.5	800-421-5666
17.8	23.7	19.3	14.9	11.0	3 4 1 2	Average	8	2	34	39	Microsoft (4)	Average	IV 98	20.5	III 98	-12.6	800-421-5666
50.1	NA	NA	NA	NA	1	Very high	-7	NA	42	50	Ariba (8)			NA		NA	800-228-2121
40.9	NA	NA	NA	NA	1	Very high	8	1	46	45	Ariba (10)			NA		NA	800-228-2121
58.6	NA	NA	NA	NA	1	Very high	14	2	42	46	Onhealth Net (8)			NA		NA	800-228-2121

DATA: MORNINGSTAR, INC., CHICAGO, IL.

THE NINTH ANNUAL BUSINESS WEEK FORUM OF CHIEF FINANCIAL OFFICERS

BusinessWeek

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MANAGING VALUE AND GROWTH: TOOLS FOR AN INTERNETWORKED AGE

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VAN WAGONER TECHNOLOGY		Technology		285.6	3393	No load	1.95†	223.8	221.0
VANGUARD AGGRESSIVE GROWTH		Mid-cap Value		577.3	8	1.00*	0.43	19.3	18.0
VANGUARD ASSET ALLOCATION	A	Domestic Hybrid	A	8597.1	23	No load	0.49	5.2	3.1
VANGUARD BALANCED INDEX	A	Domestic Hybrid	B+	3128.5	56	No load	0.21	13.6	12.4
VANGUARD CAPITAL OPPORTUNITY		Mid-cap Growth		1723.3	735	1.00*	0.94	97.8	96.4
VANGUARD EMERGING MKT. STK. INDEX	F	Diversified Emerging Mkts	C	977.7	69	1.00*	0.61	61.6	60.5
VANGUARD ENERGY	D	Natural Resources	C	1018.2	24	1.00*	0.38	21.0	20.4
VANGUARD EQUITY-INCOME	B	Large-cap Value	B+	2874.1	–2	No load	0.39	–0.2	–1.9
VANGUARD EUROPEAN STK. INDEX	B+	Europe Stock	B	5467.0	22	No load	0.29	16.7	15.9
VANGUARD EXPLORER	C–	Small-cap Growth	C	2681.7	9	No load	0.62	37.3	33.4
VANGUARD EXTENDED MKT. INDEX	C	Mid-cap Blend	C	4221.0	52	No load	0.23	36.2	32.8
VANGUARD 500 INDEX	A	Large-cap Blend	A	104652.3	41	No load	0.18	21.1	20.5
VANGUARD GOLD & PRECIOUS METALS	F	Precious Metals	B	381.7	23	1.00*	0.77	28.8	28.3
VANGUARD GROWTH & INCOME	B+	Large-cap Value	A	8021.5	55	No load	0.36	26.0	24.7
VANGUARD GROWTH INDEX	A	Large-cap Growth	A	13609.9	105	No load	0.22	28.8	27.7
VANGUARD HEALTH CARE	A	Health	B+	10420.9	12	1.00*	0.36	7.0	5.0
VANGUARD INTERNATIONAL GROWTH	C–	Foreign	C	8553.5	12	No load	0.58	26.3	24.9
VANGUARD INTERNATIONAL VALUE	C–	Foreign	C–	992.6	23	No load	0.52	21.8	20.2
VANGUARD LIFESTRAT. CONS. GROWTH	A	Domestic Hybrid	A	1713.6	21	No load	0.00	7.9	6.2
VANGUARD LIFESTRAT. GROWTH	B+	Large-cap Blend	B	2938.3	53	No load	0.00	17.3	16.3
VANGUARD LIFESTRAT. INCOME	A	Domestic Hybrid	A	559.7	25	No load	0.00	2.8	1.0
VANGUARD LIFESTRAT. MOD. GROWTH	A	Domestic Hybrid	B+	3440.7	56	No load	0.00	12.0	10.7
VANGUARD MID CAP INDEX		Mid-cap Blend		544.5	165	No load	0.25	15.4	12.2
VANGUARD MORGAN GROWTH	B	Large-cap Blend	C	4540.7	28	No load	0.44	34.1	29.9
VANGUARD PACIFIC STOCK INDEX	F	Japan	D	2311.3	124	No load	0.40	57.1	56.7
VANGUARD PRIMECAP	B+	Large-cap Blend	B+	16292.0	45	No load‡	0.51	41.3	38.9
VANGUARD REIT INDEX		Real Estate		875.4	–5	1.00*	0.26	–4.0	–6.3
VANGUARD SMALL CAP INDEX	C–	Small-cap Blend	C	3178.8	15	No load	0.24	23.1	20.5
VANGUARD STAR	B+	Domestic Hybrid	C	8087.1	0	No load	0.00	7.1	5.4
VANGUARD TAX-MGD. BALANCED	A	Domestic Hybrid	B+	308.4	49	2.00*	0.19	15.5	14.6
VANGUARD TAX-MGD. CAP. APPREC.	B	Large-cap Growth	C	2113.0	43	2.00*	0.19	33.6	33.4
VANGUARD TAX-MGD. GROWTH & INCOME	A	Large-cap Blend	B+	2073.0	53	2.00*	0.19	21.1	20.7
VANGUARD TOTAL INTL. STK. INDEX		Foreign		2264.9	–7	No load	0.00	29.9	29.3
VANGUARD TOTAL STK. MKT. INDEX	B+	Large-cap Blend	C	16311.5	75	No load	0.20	23.8	23.1
VANGUARD U.S. GROWTH	A	Large-cap Growth	B+	19068.1	40	No load	0.41	22.3	21.0
VANGUARD UTILITIES INCOME	B	Utilities	C	840.7	–12	No load	0.38	–3.0	–5.6
VANGUARD VALUE INDEX	B	Large-cap Value	B	3377.8	40	No load	0.22	12.6	9.8
VANGUARD WELLESLEY INCOME	B+	Domestic Hybrid	B	6976.4	–18	No load	0.31	–4.1	–6.9
VANGUARD WELLINGTON	B+	Domestic Hybrid	C	25528.6	–1	No load	0.31	4.4	2.0
VANGUARD WINDSOR	C–	Large-cap Value	D	16699.8	–8	No load	0.27	11.6	8.2
VANGUARD WINDSOR II	C	Large-cap Value	C	26901.8	–15	No load	0.41	–5.8	–8.3
VICTORY BALANCED A	B+	Domestic Hybrid	B	446.0	0	5.75	1.27	6.9	4.4
VICTORY DIVERSIFIED STOCK A	B	Large-cap Value	B+	1002.6	3	5.75	1.02	21.0	16.7
VICTORY ESTABLISHED VALUE G (mmmmm)	C	Mid-cap Value	B	476.9	–8	No load	1.09†	17.1	13.9
VICTORY GROWTH	B+	Large-cap Growth	B+	446.4	43	5.75	1.35	17.9	16.8
VICTORY STOCK INDEX	B+	Large-cap Blend	B	909.6	28	5.75	0.57	20.2	18.9
VICTORY VALUE	B	Large-cap Value	B+	610.9	9	5.75	1.34	11.1	8.5
VINTAGE EQUITY S	B+	Large-cap Blend	B	301.0	31	No load	1.40†	21.7	18.2
WADDELL & REED GROWTH B	C	Mid-cap Growth	B+	523.4	31	3.00**	2.10†	61.4	55.9
WADDELL & REED TOTAL RETURN B	B	Large-cap Blend	C–	542.6	8	3.00**	1.93†	12.2	11.3
WARBURG PINCUS CAP. APPR. COMM.	A	Large-cap Blend	A	1073.4	42	No load	1.00	48.3	44.8
WARBURG PINCUS EMERG. GR. COMM.	C–	Mid-cap Growth	C	1758.8	–1	No load	1.22	41.8	38.4
WARBURG PINCUS GRTH. & INC. COMM	C–	Large-cap Value	F	552.4	–25	No load	1.19	5.7	–0.1
WARBURG PINCUS INTL EQUITY COMM.	C–	Foreign	D	1035.3	–12	No load	1.36	57.0	56.7
WARBURG PINCUS JAPAN GR. COMM.		Japan		688.5	NM	No load	1.75†	266.1	265.6
WARBURG PINCUS JAP. SM. CO. COMM	D	Japan	B	1089.9	NM	No load	1.75†	328.7	328.4
WASHINGTON MUTUAL INVESTORS	B	Large-cap Value	B	55125.8	6	5.75	0.61†	1.2	–1.3
WEBS INDEX JAPAN		Japan		976.8	215	No load	1.04†	57.9	57.4
WEITZ HICKORY	A	Small-cap Blend	A	832.6	55	No load‡	1.30	36.7	34.8
WEITZ PARTNERS VALUE	A	Mid-cap Value	A	1094.5	274	No load	1.25	22.0	20.2
WEITZ VALUE	A	Mid-cap Value	A	2643.1	121	No load	1.26	21.0	19.3
WELLS FARGO ASSET ALLOCATION A (nnnnn)	B+	Domestic Hybrid	B	1368.6	–1	5.75	0.92	9.5	5.8
WELLS FARGO EQUITY INDEX A (ooooo)	B+	Large-cap Blend	B	683.6	13	5.75	0.89	20.1	19.0
WELLS FARGO GROWTH A (ppppp)	C	Large-cap Blend	C–	345.1	–1	5.75	1.12	21.2	18.0
WELLS FARGO LIFEPATH 2040 A (qqqqq)	B	Large-cap Blend	C	285.3	11	5.75	1.20†	21.0	18.8
WHITE OAK GROWTH STOCK	B	Large-cap Growth	C	2433.5	123	No load	1.00	50.1	50.1
WILSHIRE TARGET LARGE GROWTH INV.	A	Large-cap Growth	A	450.6	191	No load	0.73†	34.0	33.6
WM GROWTH & INCOME A	C	Large-cap Blend	C–	720.7	33	5.50	0.94†	18.3	17.1
WM GROWTH B	B+	Large-cap Growth	B	268.0	405	5.00**	2.46†	93.1	87.2
WM NORTHWEST A	C	Small-cap Blend	B+	395.4	30	5.50	1.10†	42.3	38.5

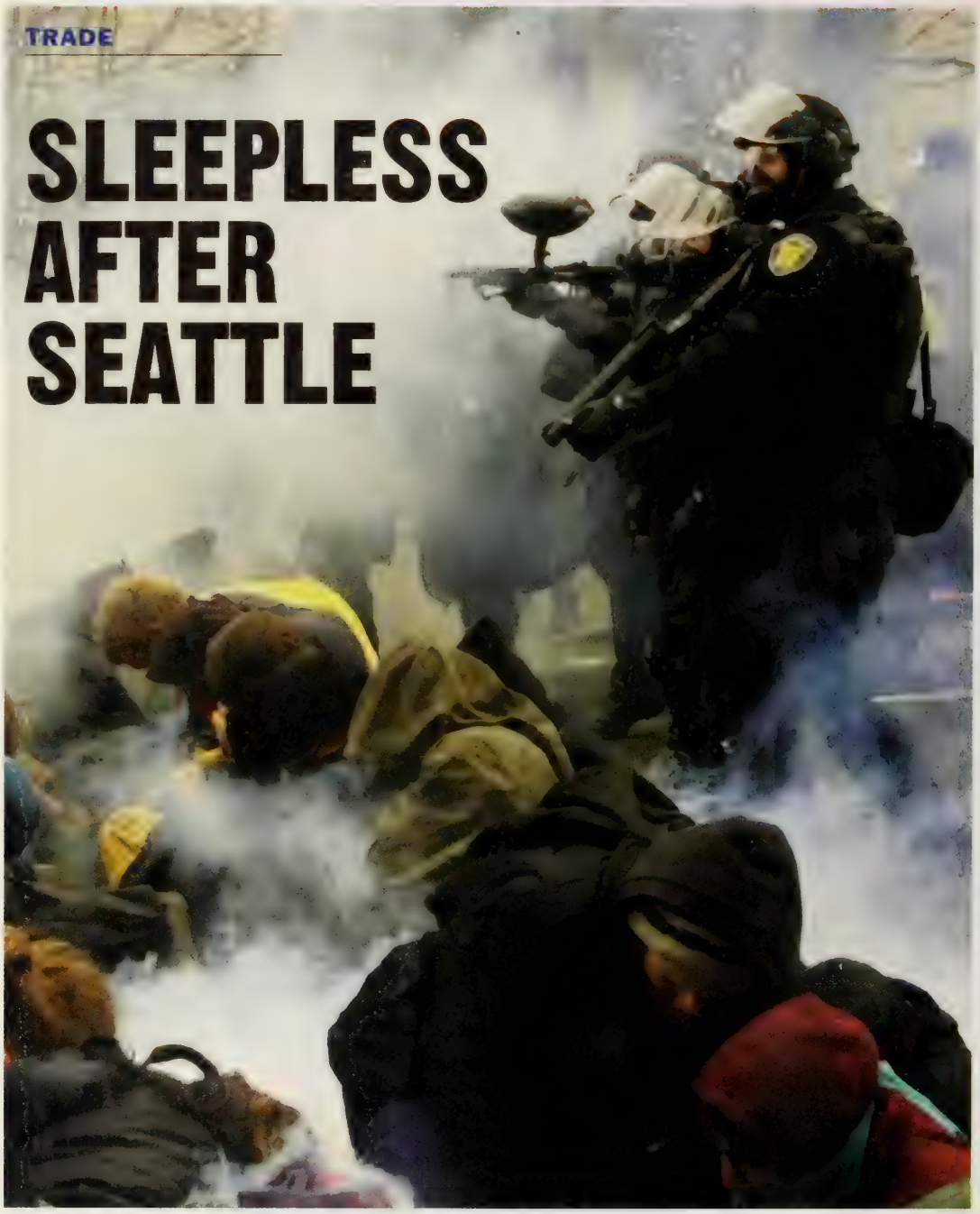
*Includes redemption fee. **Includes deferred sales charge. †12(b)-1 plan in effect. ‡Not currently accepting new accounts. §Less than 0.5% of assets. NA=Not available. NM=Not mea (mmmmm) Formerly Gradison Established Value. (nnnnn) Formerly Stagecoach Asset Allocation A. (ooooo) Formerly Stagecoach Equity Index A. (ppppp) Formerly Stagecoach Growth A. (Formerly Stagecoach Lifepath 2040 A.

E ANNUAL TOTAL RETURNS (%)					HISTORY	PORTFOLIO DATA						RISK					TELEPHONE
ARS	5 YEARS		10 YEARS		RESULTS VS	TURNOVER	CASH	FOREIGN	P-E	UNTAXED	LARGEST HOLDING	LEVEL	BEST		WORST		
TERTAX	PRETAX	AFTERTAX	PRETAX	AFTERTAX	ALL FUNDS		%	%	RATIO	GAINS (%)	COMPANY (% ASSETS)		QTR	%RET	QTR	%RET	
NA	NA	NA	NA	NA		Very high	6	1	51	39	Onhealth Net (8)			NA		NA	800-228-2121
13.5	NA	NA	NA	NA	3	Average	0	1	22	16	Lexmark Intl. Cl. A (3)			NA		NA	800-662-7447
16.3	21.4	18.6	14.8	12.5	2 3 2 2	Average	12	3	36	21	Microsoft (2)	Very low	IV 98	14.3	III 98	–4.4	800-662-7447
16.5	19.1	17.7	NA	NA	3 2	Low	2	0	35	23	Microsoft (2)	Very low	IV 98	12.7	III 98	–5.6	800-662-7447
32.7	NA	NA	NA	NA	1	High	11	13	37	31	Pharmacia & Upjohn (4)			NA		NA	800-662-7447
2.4	5.1	4.4	NA	NA	4 4	Low	6	100	23	-6	Telefonos de Mex. Cl. L (3)	Very high	IV 99	28.3	II 98	–21.5	800-662-7447
2.2	13.2	12.0	9.3	7.6	4 2 2 4	Low	3	26	40	18	Unocal (4)	High	III 97	16.1	III 98	–14.2	800-662-7447
13.4	19.9	17.8	12.9	10.8	3 3 1 3	Low	3	5	27	32	Bell Atlantic (4)	Low	IV 98	13.2	III 99	–8.4	800-662-7447
22.3	22.6	21.7	NA	NA	3 2 2	Very low	0	99	32	33	BP Amoco (3)	Low	I 98	20.4	III 98	–14.4	800-662-7447
15.5	18.6	16.4	15.7	13.8	1 1 3 3	Very low	5	5	27	37	Mettler-Toledo Intl. (1)	High	IV 99	30.0	III 98	–18.5	800-662-7447
20.6	24.1	21.8	16.3	14.7	3 2 2 2	Low	2	0	29	37	Berkshire Hathaway Cl. A (3)	Average	IV 99	29.6	III 98	–18.7	800-662-7447
26.8	28.5	27.7	18.1	17.1	3 3 1 1	Very low	1	3	39	43	Microsoft (5)	Low	IV 98	21.4	III 98	–10.0	800-662-7447
–9.3	–6.4	–6.9	–1.2	–1.9	4 1 4 4	Low	8	78	32	-36	Newcrest Mng. (8)	Very high	III 99	18.6	IV 97	–28.7	800-662-7447
25.8	28.8	26.0	18.5	16.0	3 3 1 1	Average	2	4	35	28	Tyco International (3)	Low	IV 98	20.6	III 98	–13.0	800-662-7447
34.9	33.7	32.9	NA	NA	1 1	Low	0	1	44	28	Microsoft (8)	Low	IV 98	24.6	III 98	–7.2	800-662-7447
23.0	27.8	26.3	21.5	19.7	1 3 1 3	Very low	14	25	35	37	Warner-Lambert (5)	Low	II 97	19.1	III 99	–7.2	800-662-7447
14.3	15.2	14.0	9.9	8.8	4 1 3 3	Low	5	100	32	36	ING Groep (4)	Average	IV 99	21.8	III 98	–12.8	800-662-7447
8.9	10.9	7.2	7.3	4.8	4 3 4 3	Low	1	98	28	13	Elf Aquitaine (3)	Average	IV 98	20.6	III 98	–15.7	800-662-7447
11.7	14.9	13.0	NA	NA	4 3	Very low	6	6	33	13	Vanguard Tot. Bd. Mkt. Inx. (30)	Very low	IV 98	8.8	III 98	–2.4	800-662-7447
19.1	21.0	19.7	NA	NA	2 2	Very low	6	15	35	23	Vanguard Tot. Stk. Mkt. Inx. (49)	Low	IV 98	17.3	III 98	–8.8	800-662-7447
8.0	12.0	9.9	NA	NA	4 3	Very low	10	NA	34	5	Vanguard Tot. Bd. Mkt. Inx.(50)	Very low	II 95	6.9	III 99	–0.5	800-662-7447
15.4	18.2	16.6	NA	NA	3 2	Very low	6	11	33	19	Vanguard Tot. Stk. Mkt. Inx. (35)	Very low	IV 98	13.1	III 98	–5.5	800-662-7447
NA	NA	NA	NA	NA			3	NA	31	8	Veritas Software (2)			NA		NA	800-662-7447
25.2	29.2	25.4	18.1	14.9	3 3 1 1	Average	5	6	37	42	Microsoft (3)	Average	IV 98	25.9	III 98	–16.4	800-662-7447
5.8	2.5	2.2	NA	NA	1 4 4	Very low	0	100	40	15	Nippon Telegraph & Tele. (6)	Very high	IV 98	26.5	IV 97	–20.7	800-662-7447
32.7	31.2	29.7	21.8	20.5	2 1 1 1	Very low	6	13	39	51	Texas Instruments (6)	Average	IV 98	28.8	III 98	–13.0	800-662-7447
–3.6	NA	NA	NA	NA	4	Low	2	NA	19	-21	Equity Office Properties Tr. (5)			NA		NA	800-662-7447
12.3	17.8	15.7	14.2	12.5	3 1 3 3	Low	3	0	25	17	Gilead Sciences (§)	High	IV 99	18.6	III 98	–20.1	800-662-7447
11.0	16.9	14.2	12.3	9.9	3 3 3 3	Very low	12	NA	26	27	Vanguard Windsor II (25)	Very low	IV 98	11.5	III 98	–8.1	800-662-7447
15.7	17.1	16.6	NA	NA	3 2	Very low	5	0	38	22	General Electric (2)	Very low	IV 98	12.3	III 98	–5.0	800-662-7447
29.4	28.7	28.5	NA	NA	1 1	Very low	0	1	39	46	General Electric (4)	Average	IV 98	25.4	III 98	–13.1	800-662-7447
27.1	28.6	28.0	NA	NA	1 1	Very low	0	3	37	29	Microsoft (4)	Low	IV 98	21.4	III 98	–10.0	800-662-7447
13.6	NA	NA	NA	NA	3	Very low	0	NA	33	18	Vanguard European Stk. Index (61)			NA		NA	800-662-7447
25.2	26.8	26.0	NA	NA	3 1 2	Very low	5	0	35	33	Microsoft (4)	Average	IV 98	21.5	III 98	–12.1	800-662-7447
27.7	30.3	28.5	19.8	18.7	1 4 1 1	Average	5	4	46	45	Cisco Systems (6)	Average	IV 98	24.7	III 98	–9.4	800-662-7447
11.3	15.9	13.6	NA	NA	3 4 3	Average	2	12	23	19	Sprint (FON Group) (4)	Low	IV 97	13.1	III 99	–5.5	800-662-7447
16.6	22.8	20.8	NA	NA	1 3	Low	0	5	28	21	Exxon (4)	Average	IV 98	17.5	III 98	–12.9	800-662-7447
5.7	12.7	9.6	10.6	7.7	3 3 3 4	Low	3	12	24	9	BP Amoco ADR (2)	Very low	II 95	8.5	III 99	–3.1	800-662-7447
10.2	17.4	14.7	12.6	10.2	3 3 3 3	Low	1	16	27	21	Citigroup (2)	Very low	II 97	12.2	III 99	–5.3	800-662-7447
7.7	17.7	13.9	13.0	9.6	3 2 1 4	Average	1	13	24	23	Citigroup (6)	Average	II 99	13.8	III 98	–19.5	800-662-7447
10.3	20.1	17.3	13.8	11.4	3 3 1 3	Low	6	2	25	23	Chase Manhattan (3)	Average	IV 98	14.9	III 99	–13.6	800-662-7447
12.3	16.8	14.6	NA	NA	3 3	Very high	3	10	31	19	Chevron (1)	Very low	IV 98	10.2	III 99	–4.3	800-539-3863
19.8	26.4	22.1	17.5	14.2	3 2 1 2	Average	4	5	33	11	Texaco (3)	Average	IV 98	17.6	III 99	–9.0	800-539-3863
12.7	18.1	15.5	13.2	11.2	4 1 2 3	Low	26	NA	23	34	Household Intl. (4)	Low	IV 98	14.1	III 98	–13.2	800-539-3863
26.9	28.4	26.6	NA	NA	1 1	Low	3	0	37	37	General Electric (4)	Low	IV 98	22.8	III 98	–6.7	800-539-3863
24.4	27.7	25.7	NA	NA	1 2	Very low	11	2	35	33	S&P 500 Index (Fut.) (16)	Low	IV 98	21.1	III 98	–10.0	800-539-3863
18.3	24.0	21.3	NA	NA	1 2	Low	1	1	30	27	Ameritech (3)	Low	IV 98	18.2	III 99	–9.1	800-539-3863
23.5	27.2	24.9	NA	NA	1 2	Average	1	4	36	50	Lucent Technologies (3)	Average	IV 98	27.5	III 98	–15.2	800-438-6375
37.6	30.8	28.3	NA	NA	4 1	Average	20	5	34	49	America Online (4)	High	IV 99	41.0	III 98	–13.7	800-366-5465
17.4	20.9	19.9	NA	NA	2 2	Average	6	5	36	35	Fannie Mae (2)	Low	II 97	17.1	III 98	–7.1	800-366-5465
31.1	33.1	29.0	19.7	16.9	3 2 1 1	High	1	4	49	44	Cisco Systems (3)	Low	IV 99	33.0	III 98	–11.4	800-927-2874
20.5	23.9	22.5	18.3	17.2	2 1 2 2	Average	4	1	44	51	Maxim Integrated Products (3)	High	IV 99	39.3	III 98	–23.0	800-927-2874
11.4	13.0	10.0	13.2	10.2	3 1 4 3	Average	10	10	22	28	BP Amoco ADR (4)	Average	IV 98	16.5	III 98	–14.4	800-927-2874
15.1	13.9	12.7	12.3	11.4	3 1 4 3	Average	1	99	40	34	NTT Mobile Comms. (6)	High	IV 99	33.8	III 98	–17.8	800-927-2874
55.5	NA	NA	NA	NA	1	Average	-15	100	55	43	Softbank (6)			NA		NA	800-927-2874
52.0	25.4	24.8	NA	NA	4 1	High	0	99	56	40	Hikari Tsushin (8)	Very high	IV 99	56.2	I 95	–18.3	800-927-2874
14.8	22.3	19.6	14.9	12.8	3 3 1 3	Low	4	NA	25	35	Bank of America (3)	Low	II 97	14.4	III 99	–9.4	800-421-4120
7.6	NA	NA	NA	NA	4	Very low	4	100	45	22	Nippon Telegraph & Tele. (9)			NA		NA	800-810-9327
34.2	36.9	35.1	NA	NA	1 1	Low	15	NA	26	16	Telephone & Data Sys. (8)	Low	I 98	24.1	III 98	–15.6	800-232-4161
28.1	29.6	26.9	18.9	16.3	2 2 1 1	Low	23	NA	24	18	Telephone & Data Sys. (5)	Very low	I 98	16.6	III 98	–9.0	800-232-4161
26.4	28.9	26.0	18.1	16.0	3 3 1 1	Low	34	NA	24	19	Telephone & Data Sys. (6)	Very low	I 98	16.5	III 98	–7.3	800-232-4161
15.6	19.3	16.3	14.3	12.0	2 3 3 2	Low	0	3	37	15	Microsoft (3)	Very low	IV 98	16.1	III 98	–5.6	800-222-8222
25.3	27.3	26.1	17.0	16.0	3 3 1 2	Very low	1	2	35	73	Microsoft (4)	Low	IV 98	21.0	III 98	–10.1	800-222-8222
19.5	23.9	20.7	NA	NA	3 2 2	High	0	3	39	25	S&P 500 Dep. Rec. SPDR (5)	Average	IV 98	23.3	III 98	–10.7	800-222-8222
21.8	24.6	22.3	NA	NA	1 2	Low	1	22	36	43	Microsoft (3)	Low	IV 98	21.5	III 98	–11.6	800-222-8222
37.5	39.4	39.3	NA	NA	1 1	Very low	2	0	42	35	Tellabs (6)	High	IV 98	37.5	III 98	–19.1	888-462-5386
34.6	33.8	31.9	NA	NA	1 1	Average	6	NA	43	27	Microsoft (10)	Low	IV 98	25.3	III 98	–7.9	888-200-6796
19.0	23.3	21.4	15.3	13.4	3 3 1 2	Average	0	2	33	31	Microsoft (2)	Average	IV 98	21.3	III 98	–14.5	800-222-5852
44.7	38.8	34.3	NA	NA	3 1	High	9	10	50	38	Nokia Cl. A ADR (7)	High	IV 99	42.5	III 98	–7.7	800-222-5852
29.6	29.2	26.7	18.3	16.9	1 4 1 1	Low	9	1	33	59	Radisys (4)	High	IV 98	45.3	III 98	–18.0	800-222-5852

DATA: MORNINGSTAR, INC., CHICAGO, IL

TRADE

SLEEPLESS AFTER SEATTLE



SEATTLE PROTESTS: *Now business is taking a grassroots approach*

The WTO fiasco has scared business into mounting a massive drive to normalize trade ties with China

The 17,000 workers at Farmland Industries Inc. know who butters their bread. Imprinted on the paycheck stubs of the giant Kansas City (Mo.) agricultural cooperative are such messages as: "China will account for nearly 40% of the future growth of U.S. agricultural exports. Support normal trade relations status for China." At CNH Global, the message is no less subtle. Suppliers of the Racine (Wis.) maker of farming and construction equipment have been given spiffy toolboxes stuffed with brochures and a videotape noting that CNH exports more than one-third of its farm equipment. CNH is telling suppliers it counts on China to be its principal growth market.

Until recently, most U.S. exporters didn't go to such efforts to "educate" assembly-line workers and small subcontractors about the importance of international trade. When the time came to lobby Congress for new trade legislation, big exporters just flew in their chief executives for a day of Capitol Hill arm-twisting. But a string of defeats in Congress, followed by the trade talks fiasco in Seattle last December, has finally awakened Washington's business reps to the power of grassroots lobbying. Now, businesses are prodding employees and subcontractors to make their own visits and phone calls to congressional offices—by the tens of thousands. With a $10 million war chest, Corporate America's effort to win permanent Most Favored Nation (MFN) trade status for China is shaping up as one of its most forceful lobbying drives in years.

The Clinton Administration, which offered only halfhearted support for major trade legislation over the past four years, isn't wasting any time, either. President Clinton on Jan. 10 promised "an all-out effort" and picked Commerce Secretary William M. Daley to reprise his successful 1994 lobbying campaign to secure congressional approval for NAFTA. "We are hearing that companies are going to engage their workers and suppliers in the effort and not just have the CEO meet their congressman once and think that's going to mean something," Daley told BUSINESS WEEK. Daley has already enlisted executives from Boeing, Honeywell, AT&T, and Citigroup for the effort.

Nevertheless, the battle to grant China permanent MFN status, as called for in the deal the Clinton Administration struck with Beijing last November, is anything but a sure bet. Election-year politics and a combat-tested coalition of China critics could sink the effort. The critics—labor unions, environmentalists, and citizens groups—want to hold China accountable for labor and human-rights abuses and to blunt Beijing's potential influence within the World Trade Orga-

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nization. An extended congressional debate would be their ally since the closer the vote gets to Election Day, the less likely it is that Congress will grant permanent MFN to China.

The stakes for business are huge: To join the WTO, China has promised to cut its tariffs in half over five years and to open up vast sectors of its economy to foreign investment and even ownership. The political risks are also enormous. Potential losers in the fight include two prominent Democrats, Vice-President Al Gore and House Minority Leader Richard A. Gephardt, whose support of China's bid to enter the WTO may cost them backing from labor, environmental, and consumer groups.

CAREFUL TIMING. Gore supports permanent trading rights for China. But the Veep has been endorsed by the AFL-CIO in the Democratic primary, and he is counting on labor's help against challenger Bill Bradley. Gore's candidacy could be wounded if his labor allies fail to mobilize the troops, especially in the crucial California primary.

Gephardt's dilemma is just as tricky. He says he backs China's entry into the WTO, but for the past two years has opposed renewing China's MFN status. Aides say Gephardt is leaning toward supporting the Administration, yet labor's political muscle could determine whether the Democrats win back the House this November—and elevate him to House Speaker.

To prolong Democratic infighting but still leave time enough to pass the legislation, the GOP must time the vote carefully for this summer. That would allow China to complete its remaining negotiations with the European Union and the Geneva-based WTO. But the vote will also have to await hearings by at least three House committees. "We don't want anyone to say that we short-changed the deliberative process on this," says House Rules Committee Chairman David Dreier (R-Calif.), who supports permanent MFN for China.

While business is irked with Democrats and Republicans alike for risking the deal with China over partisan politics, it thinks it has a winning argument: that WTO rules require each member country to grant all other members "unconditional" MFN treatment. To the

TRADE WITH CHINA: WHAT NOW?

Now that Beijing and Washington have agreed on the terms of China's admission to the World Trade Organization, it's a done deal, right?

Not exactly. China also has to reach separate deals with the European Union. And it still must reach an overall agreement with the WTO on the timing of all its market-opening promises. Only then will the 135 member-nations vote on China's admission. It could be summer before all the details are ironed out.

Sounds complicated. But at least then U.S. companies can go into export overdrive, right?

No again. Congress will also have to remove certain restrictions on China's trade status. That's necessary because the WTO code requires each member to grant "unconditional" Most Favored Nation (MFN) trading status to all other members.

So the White House wants permanent MFN status for China, huh? What happens if Congress doesn't go along? Does that mean China can't join the WTO?

No, China can still join the WTO. But under the WTO rules, China could reciprocate by denying MFN treatment—basically, its lowest tariffs—to any nation in the WTO that denies it similar treatment. In effect, that means the U.S. would be isolated as the only WTO member that refuses MFN to China and vice versa.

So it's permanent MFN for China or disaster, then?

Not necessarily. China's critics want Congress to grant a yearlong extension of MFN rather than permanent MFN. They contend that would satisfy the WTO's rule on "unconditional" MFN while providing China with an incentive to keep its market-opening promises.

Will the President go along with such a compromise?

Not at this time. The Administration insists that only permanent MFN satisfies the "unconditional" clause in the WTO rules.

And what if Congress denies China permanent MFN?

Well, either the U.S. or China could file a complaint with the WTO. A three-member panel would have to issue a decision. The whole process could take two years. Since the WTO has never addressed this issue directly, no one can say for sure how it would eventually turn out.

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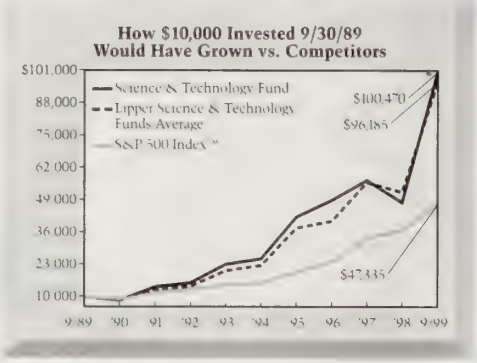

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*Fund inception date: 9/30/87. The fund was also ranked #5 out of 12, #9 out of 29, and #30 out of 90 science and technology funds for the 10-, 5-, and 1-year periods ended 9/30/99, respectively. Among all equity funds, the fund was ranked #5 out of 870, #19 out of 2,551, and #82 out of 6,747 funds for the same respective periods.

†Morningstar proprietary ratings reflect historical risk-adjusted performance as of 11/30/99. These ratings may change monthly and are calculated from the fund's 3-, 5-, and 10-year average annual returns in excess of 90-day Treasury bill returns with appropriate fee adjustments and a risk factor that reflects fund performance below 90-day Treasury bill returns. The fund received 5 stars for the 3-, 5-, and 10-year periods. The top 10% of the funds in a broad asset class receive 5 stars.

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Committed to Normalizing Trade

ALL-OUT President Clinton and Prime Minister Zhu Rongji agreed last November on terms for admitting China to the WTO. Zhu promised to open China's markets to imports and foreign investment. Clinton pledged to secure permanent MFN status for China. Election-year politics may make it difficult for Clinton to keep his promise.

White House, that means "permanent" MFN; others disagree (page 124). Without permanent MFN, business will say, Beijing could deny the U.S. the benefits of its market-opening trade concessions. Deutsche Telekom and Fiat would get the business that would have gone to AT&T and Ford.

But that legal issue has never been addressed directly by any WTO court. "It's not clear precisely what is meant by 'unconditional' and whether some temporary grant of MFN could satisfy the requirement," says Frederick M. Abbott, an international law professor at

Caught in the Middle of the Battle

DICEY Vice-President Gore supports China's WTO bid and the grant of permanent MFN status. But that has angered his union and environmental backers. House Minority Leader Gephardt (D-Mo.) supports China's WTO bid but hasn't decided on the permanent MFN question. He needs labor's help to return the Democrats to a House majority.

Air-conditioned clothing?
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the Chicago-Kent College of Law. In all likelihood, though, anything less than permanent MFN would set the stage for a battle in the WTO's court.

China's critics also see opportunities for victory. If labor, environmental, and human-rights groups can persuade Congress to keep China in suspense each year with an annual renewal, rather than permanent MFN, the U.S. will retain the leverage to push for political reforms. And should the controversy derail Clinton's effort to get China into the WTO, so much the better. "Letting China into the WTO will only make a bad organization worse," says Lori Wallach, head of Public Citizen's Global Trade Watch, a Naderite group.

Dead Set Against Normal Trade

CRITICS AFL-CIO President John Sweeney opposes China's WTO bid, but he must be careful not to hurt Gore's campaign for the White House. The AFL-CIO has endorsed Gore despite his China stand. Ralph Nader's Public Citizen has fought to keep China out of the WTO and to hold it accountable for human-rights, labor, and other abuses.

SWEENEY

NADER

Another big question involves China's reaction to any slight from Congress. Beijing has tried to sell skeptical Chinese business leaders on the idea of making painful market-opening concessions as a trade-off for full MFN status from Washington. "WTO is already a very sensitive topic in China," and anti-reform groups would welcome any excuse to scuttle the deal, says Wang Yong, a professor at Beijing University's School of International Studies.

With real possibilities for failure, business and the Clintonites acknowledge that they can't take the same lackadaisical approach that led to past trade fiascos. If they are to improve their chances of winning, it will be because the workers at Farmland and the suppliers at CNH Global get the message.

By Paul Magnusson in Washington, with Dexter Roberts in Beijing

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EUROPE

THE BIG GRAB

Deal mania may be even hotter in Europe this year

It's a statistic no one in the corporate world would have thought possible just a few years ago. In 1999, the value of mergers in Europe hit $1.5 trillion, almost double the $988 billion total for 1998 and approaching the record $1.9 trillion in the U.S. "European chief executives are feeling pressure from shareholders and boards to focus on mergers and acquisitions in an effort to improve returns," says Daniel M. Dickinson, head of European M&A at Merrill Lynch & Co. in London. And when there's pressure, there are deals.

The elements are there for another hot twelve months on the European merger scene. Bankers predict that deals involving European companies will approach the $2 trillion mark this year. Taboos against takeovers continue to tumble, and the euro makes big deals much easier. Having a common currency allows companies across the euro zone to use their shares for purchases. And fund managers' bottomless appetite for euro-denominated paper means that giant bond issues can be sold to finance acquisitions. "The scarce commodity is good ideas," not money, says John S. Wotowicz, head of leveraged finance at Morgan Stanley Dean Witter in London. But the ideas are there, too. The big themes for 2000: rapid-fire dealmaking in telecom, the rise of the cross-border deal, and Germany's full-fledged entry into the game.

MINDSHIFT. Germany, Europe's biggest economy, has long lagged the rest of Europe in restructuring. But last year, German companies were the targets of bids worth $265 billion—second only to Britain with $384 billion. Driving the deals is a shift in the mindset of German CEOs. Not long ago most German bosses didn't think that cutting deals was part of their job description. They worried about potential culture clashes and about the risk of criticism for spending wagonloads of money. Now, says Ernst Fassbender, co-head of investment banking for Merrill Lynch in Frankfurt, the chiefs of just about all sizable German companies are considering big transactions.

German businesses may be influenced by the deal mania raging next door in France. One banker predicts one-third of the top 40 blue chips in France's CAC 40 index will either be taken over or will gobble up somebody else in 2000. Still, Germany's CEOs remain skeptical. One reason: The high-profile merger of Daimler Benz and Chrysler in 1998 has disappointed Daimler shareholders.

Cross-border deals will play a bigger role this year. Many of last year's deals, including Olivetti's grab of Telecom Italia and TotalFina's $49 billion gulp of French rival Elf Aquitaine, were one-country affairs. But a hefty 60% of last year's European action crossed national borders, according to J. P. Morgan analyst Paul Gibbs. Bankers figure such deals will increase when obvious domestic merger possibilities are exhausted.

Financial services could well be ripe for such a shift. The bold movers could be ING Group and ABN Amro of the Netherlands, Banco Santander Central Hispanico and Banco Bilbao Vizcaya of Spain, and the big Swiss banks. Having survived consolidation in their home markets, they are hunting for acquisitions that will give them entrée to Europe's biggest markets. ING has just bought a German bank, BHF-Bank in Frankfurt, and is trying to gain control of Crédit Commercial de France, in which it holds a 19.2% stake. Banco Santander is putting up $2 billion to back a

bid by Royal Bank of Scotland for National Westminster Bank.

Deregulation could send European utilities into other markets. Germany's VEBA and VIAG merged last year. Along with RWE, they are now rolling up the German electric power sector, which still has some 900 companies. Bankers think it won't be long before these cash-rich heavies try to extend their reach to other European markets.

Once again the telecom sector is the most likely source of monster deals. It is consolidating fast, and valuations are astronomical. A senior Paris investment banker says that Prime Minister Lionel Jospin is putting the heat on France Télécom CEO Michel Bon to do a deal that makes the company a world player. Former monopolies such as Deutsche Telekom are worried about being eclipsed by alternative players and are on the prowl. Even British Telecom, which had professed to be comfortable with buying minority stakes in other European players, seems to have been jarred into a more aggressive approach by British mobile king Vodafone AirTouch, which made a hostile $134.5 billion takeover bid for Germany's Mannesmann. On Jan. 11, BT put up a winning $2.5 billion bid for Ireland's Esat Telecom Group, trumping a hostile foray by Norway's Telenor.

U.S. telecoms are also keeping a close eye on what goes on across the Atlantic. Bell South Corp., which last year outmaneuvered France Télécom to grab a 60% stake in Germany's No.3 mobile operator, E-plus, could well be an aggressive buyer with its partner, KPN Telecom of the Netherlands. Bankers say that SBC Telecommunications, which is now invested in Belgium, Denmark, and Hungary, could be eyeing deals to give it entrée to the major markets.

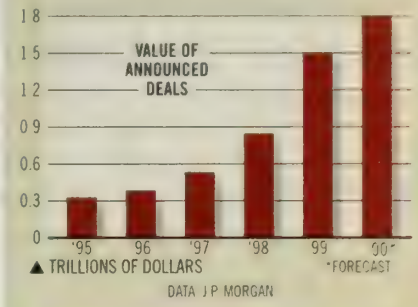
The telecom hunt could spill over into related industries. The AOL-Time Warner merger is likely to spur thinking about such moves. Microsoft is already a big investor in European cable systems and has strong links with Sweden's mobile systems leader, Ericsson. More such deals are likely as companies shop to fill holes in their technology spectrum.

MOTOR MERGERS? More traditional consolidation deals are likely as well. Bankers think Fiat is preparing to sell its auto division. Peugeot could come on the block, and the Quandt family, which controls BMW, may be tempted to sell a stake to an outsider. The logical buyers: DaimlerChrysler, Ford, and GM. And bankers say Swiss drugmakers Novartis and Roche may attempt to shore up their positions in the U.S.

What could stop the deal parade? A market crash certainly would devalue the deal currency and might make players queasy about valuations. Higher interest rates, too, would make financing deals harder. An ugly local reaction to a hostile takeover could also give pause. But there are no red flags at the moment, and companies are drawing up their battle plans. Let the deals roll.

By Stanley Reed in London and Carol Matlack in Paris

KEY PLAYERS IN EUROPE'S MERGER WAVE



SOME LIKELY PREDATORS...

FRANCE TELECOM Under pressure to expand through cross-border deals. **Market cap: $120 billion**

VEBA/VIAG Now completing merger to create Germany's biggest utility. Will buy up smaller electric companies in Germany. **Market cap: $38.7 billion**

ING GROUP Hemmed in at home, Netherlands bank wants to buy Crédit Commercial de France. Also on the prowl for retail banks in Germany. **Market cap: $57 billion**

LLOYDS TSB Most successful British bank has run out of room to grow in home market. Could be eyeing Continental acquisitions. **Market cap: $60 billion**

...AND SOME LIKELY PREY

BOUYGUES Owner of France's No.3 mobile phone company, could be targeted by Deutsche Telekom or French takeover artist Bernard Arnault. **Market cap: $15.5 billion**

DRESDNER BANK Germany's No.3 bank is said to want to do a deal with Hypo-Vereins Bank. Could partner later with Switzerland's Crédit Suisse Group or UBS. **Market cap: $29.8 billion**

FIAT Italian auto maker may be too small to survive global consolidation. Bankers say management is preparing for sale. **Market cap: $57.2 billion**

SMITHKLINEBEECHAM British pharmaceutical company could be acquired by Glaxo Wellcome or Bristol Meyers Squibb. **Market cap: $73.7 billion**

DATA BUSINESS WEEK

EUROPE

WAL-MART'S NOT-SO-SECRET BRITISH WEAPON

It's using its Asda unit for an all-out assault on Europe

Allan Leighton has just gotten one of the hottest jobs in retailing—president and chief executive of Wal-Mart Europe. His mandate: Turn Wal-Mart's European incursion into an all-out assault. And leading the assault will be Asda, the giant British retailer Wal-Mart bought last July and which Leighton ran until he got his new title.

Asda's own home-grown philosophy of low prices and aggressive expansion fits neatly with Wal-Mart's worldview, so the giant U. S. chain sees it as the perfect cornerstone for its European plans. And Leighton is wasting no time. On Jan. 10, scarcely a month after his promotion, he announced plans to open six new Asda stores, expand six others, build a dozen or so distribution centers for online shopping, and add 27,000 new jobs to the Asda/Wal-Mart payroll in Britain by 2005.

That's the kind of blistering pace Wal-Mart needs to achieve its foreign ambitions. Buying Asda doubled Wal-Mart's international sales to almost $25 billion, overnight. But that's still a fraction of overall sales of $165 billion. Wal-Mart wants international operations to account for a third of sales growth by 2004. Analysts figure that could mean $72 billion in international revenue within four years. Other regions, like Latin America, will contribute. But the big action will be in Europe, where Wal-Mart has 95 stores in Germany under its own name, and 231 Asda outlets in Britain.

Germany is a key market, but Wal-Mart is losing about $150 million annually there because of renovation costs and the impact of price wars. Asda, in contrast, is nicely profitable: Operating profits in 1999 were about $715 million on sales of $13 billion.

Asda's stores were known for good deals on groceries, apparel, and electronics even before Wal-Mart bought the chain last July for $11 billion. But since Wal-Mart took over, Asda has embarked on its biggest discount drive ever, pledging to roll back prices by 5% to 10% on 10,000 items. The price offensive is putting serious pressure on leading British rivals Tesco, Safeway, and Sainsbury, whose publicly traded shares have been battered by the Wal-Mart invasion. There are even signs that Wal-Mart-induced price wars are lowering inflation in food prices. "Anywhere Wal-Mart goes, a disinflationary trend follows, because Wal-Mart is seen as an agent for prices going down," says Credit Suisse First Boston's director of retail research, David M. Shriver.

Leighton, who rose through the ranks at Asda, is turning up the heat further. On Jan. 7, Asda defied British price protections on over-the-counter drugs by lowering the cost of Nicorette gum by 20%, to $7.40 a pack. "It's not right to sell ordinary health-care items at rip-off prices," says Leighton. He's bringing the price wars to the Web, too. Wal-Mart's first European online venture, Asda@Home, plans free access to the Internet, low prices on goods, and free delivery to British consumers. Asda's inexpensive but hip clothing brand, George, may be rolled out across the Continent.

PROWLING. Good start. Leighton also plans to roll out Wal-Mart's super-efficient logistics systems from the U. S. to all European operations. But other European giants are bulking up to meet the Wal-Mart threat. France's Carrefour is integrating French rival Promodes Group, which it bought for $16.5 billion in August. Other retailers, including Germany's Metro and Royal Ahold in the Netherlands, are on the prowl.

So to add heft fast, Leighton will have to consider takeovers. In Germany, "Wal-Mart does not have enough of a presence yet," says Merrill Lynch Europe retail analyst Vera Diehl. Possible German targets for Wal-Mart could include retail co-operative Ava or Metro's hypermarket business, Real. In France, discounters Casino and Auchan could make for interesting acquisitions. The timing is right too to make shrewd buys: Share prices for European retailers are off about 11% from a year ago.

Meanwhile, Asda is managing to teach Wal-Mart a few lessons. Burt P. Flickinger III of U. S. retail consultancy Reach Marketing says Asda is helping Wal-Mart improve its productivity in selling food and restocking grocery shelves. Asda may even inspire Wal-Mart to offer some novel incentives. A current staff incentive program offers the top-performing employee free use of a Jaguar for a week. Trunk's kind of small for groceries, though.

By Kerry Capell and Heidi Dawley in London, with Wendy Zellner in Dallas and Karen Nickel Anhalt in Berlin

BIGGER SHARE: *Wal-Mart cut Asda prices to pressure rivals*

THE GIANT'S EUROPEAN GAME PLAN

EXPANSION Opening six new stores in Britain, while remodeling many of its 95 locations in Germany.

PRICE POLICY Slashing prices on thousands of goods to pressure rivals.

E-COMMERCE Beginning with Asda@Home, plans to offer free home delivery for all products bought online. Wal-Mart has built four separate distribution centers to serve online customers.

DATA: BUSINESS WEEK, COMPANY REPORTS

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MILBERG: *One big problem is a lack of hot new models*

AUTOS

BMW COULD USE A LITTLE SKID CONTROL

Market share slips as energy is diverted to Rover

BMW kicked off its presentation at the Detroit car show this year with all the trappings one would expect from the maker of "the ultimate driving machine." Dancers pranced around its new models while music from the latest James Bond movie blared from loudspeakers. But unlike archrival Mercedes-Benz, which drew cheers for its pair of sleek concept roadsters, BMW had no "wow" car to unveil. The best it could muster was a convertible version of its $25,000 3 Series.

The absence of a cutting-edge model underscores growing concern that the German auto maker may be devoting too much energy to Rover, its troubled British operation. To revive what skeptics have dubbed "the English patient," BMW is pouring money and talent into a make-or-break turnaround effort. But some worry that by diverting resources, BMW will hamper development of its own luxury sedans—and ultimately risk losing more market share.

BOSS BREAKER. Rover has been a problem ever since BMW bought it for $1.2 billion in 1994 to break into the mass market. Indeed, Joachim Milberg moved up from head of production to CEO last February when his predecessor, Bernd Pischetsrieder, resigned after a boardroom dispute over Rover. Milberg's goal is for Rover to match BMW quality standards, and turn a profit, by 2002.

It's a tough challenge, considering that Rover lost $1 billion in 1999 alone. Milberg plans to invest about $5.3 billion in Rover over the next five years—one-third of BMW's total spending. That's on top of the $3.4 billion BMW has already poured into the company. In December, Milberg dispatched a BMW engineer to run Rover's main plant at Longbridge. And this month, BMW is sending about 200 specialists to Rover's research and development center in Gaydon, Britain, to develop a small car. Milberg wants to avoid snafus like last year's six-month delay in the launch of the Rover 75, a $30,000 luxury sedan that was supposed to mark a renaissance in Rover workmanship. As it turned out, the quality of the car was so poor that BMW had to fly in a crack team of engineers to fix it.

AMERICAN WOES. Throughout the Rover saga, BMW has promised investors that the BMW brand would remain unscathed. "There has never been a trade-off situation with Rover not to do a BMW project," says BMW Chief Financial Officer Helmut Panke. Indeed, BMW's luxury-sedan division is still richly profitable. Analysts estimate the company earned $2.1 billion on sales of $22 billion last year. But there is cause for concern. Sales of its $38,000 5 Series and $60,000 7 Series sedans fell nearly 10% in 1999. That means BMW'S sales growth was generated almost exclusively by the lower-margin 3 series.

BMW also lost its lead among the German luxury carmakers to Mercedes in the lucrative U.S. market in 1999. In Europe, its market share has declined to about 3.1%, from 3.4% in 1996. "They have a lot of competition snapping at their heels," says John K. Lawson, an analyst with Salomon Smith Barney in London. Even Audi sells more cars in Western Europe these days than BMW.

The pressure has never been greater to roll out new models. But with the exception of its $130,000 retro Z8 roadster, BMW's luxury lineup is a row of familiar faces. Panke says 20 introductions are planned, but most of these are derivatives of existing models. Investors are getting restless as BMW's share price languishes. But Panke dismisses the suggestion that BMW is suffering. "I would say that we have never been as strong as we are right now," he says.

BMW has made progress at Rover, cutting 8,000 jobs and putting suppliers on notice that they will have to trim prices by at least 10% or risk losing Rover business. But the Germans have a long way to go before the English patient is healthy.

By Matt Karnitschnig in Detroit

OVERHAULING ROVER

THE INVESTMENT BMW has poured about $3.4 billion into Rover since it acquired the troubled British carmaker for $1.2 billion in 1994. It plans an additional $5.3 billion infusion through 2005.

THE BRAINPOWER More and more of BMW's 6,000-strong R&D staff is being assigned to develop new models and improve quality at Rover, with the goal of having it in the black by 2002.

THE RISK BMW's all-out effort to revive Rover could backfire if it causes the company to neglect its core luxury car business.

DATA: BUSINESS WEEK

ROVER 75: *A troubled launch*

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GERMAN POLS AND BUSINESS: THE END OF THE AFFAIR?

irst, there was the Italian "clean hands" campaign against corruption and the Mafia. Then came the French prosecutors' attack on business and government backroom ealmaking. Now it's the German prosecutors' turn: Hardly a ay passes without a new development in the scandal surounding alleged illegal campaign donations to the Christian emocratic Union through secret bank accounts. And investigators want to know the role Chancellor Helmut Kohl layed in the whole affair. "It has become potically correct to go after the big shots," says Vulf H. Döser, a Frankfurt lawyer and uniersity professor.

By going after Kohl—the architect of naional unity and thus by German standards ne biggest big shot of them all—Germany's rosecutors are displaying new-found aggresiveness. Long dismissed as gray bureaucrats vith low profiles, prosecutors such as Dieter rsfeld, chief of the Bonn state's attorney's ofce, and Bernd König, the Bonn prosecutor nanaging the Kohl investigation, are suddenly apturing headlines. "No one is immune from crutiny," declares Reinhard Nemetz, a proseutor in Augsburg, who is investigating secret ayments by a local businessman to Kohl's Christian Democrats.

PROBER: *Bonn's König*

The crackdown on illegal campaign financing s just the latest phase in Germany's painful trek to a more pen society. It's another sign that the old consensus model—n which politicians, businesspeople, and unions struck deals ehind closed doors—is breaking down. Like their counterarts in Italy and France, many German voters are fed up vith politicians. "The public already believed politics was a lirty business," says Edzard Schmidt-Jortzig, a member of Parliament who served as Justice Minister under Kohl. "Now t's confirmed." In a poll by the Berlin-based Forsa Institute, 60% of Germans find neither the Christian Democrats nor the Socialists qualified to govern. Some 89% of voters think both parties take secret campaign contributions, according to polltakers Institut für Demoskopie Allensbach.

The implications of the prosecutors' investigations could be far-reaching. Even if criminal charges are never brought against Kohl and other politicians, such as CDU Chairman Wolfgang Schaüble, the ongoing revelations are likely to lead to a shakeup in the CDU's upper ranks and the end of Kohl's still-considerable influence on German politics. Pressure is growing on Schaüble to resign after he admitted on Jan. 10 that he accepted a bag of $52,500 in cash for the CDU from suspected arms dealer Karlheinz Schreiber. "Schaüble must do whatever his conscience tells him," declared Chancellor Gerhard Schröder on Jan. 11, signaling he plans to let the CDU hang itself. The SPD hasn't been spared scandal, either: SPD officials in North Rhine-Westphalia and Lower Saxony are accused of accepting corporate gifts.

NO NAMES? For now, the CDU investigation is far more explosive, and the prosecutors are burrowing away. The scandal could even cast a shadow over Germany Inc. A key figure in the scandal is Walther Leisler Kiep, the former CDU treasurer known for his corporate connections.

Kohl, meanwhile, has refused to reveal the identities of those who gave $1 million in illegal donations between 1993 and 1998. But if asked to testify in court, he may have to name names. If the donations came from companies or executives seeking government favors, the revelations could deliver a knockout blow to the cozy relations that exist between German business and the CDU. It could spur calls for far greater transparency in corporate and government accounting. And alternative parties such as the Greens could benefit. Germany may be in for a year of political surprises.

By Jack Ewing in Frankfurt

GLOBAL WRAPUP

INDIA OPENING?

▶ Ending a five-year trade dispute with the U.S., India has agreed to lift import restrictions on some 1,500 agricultural and consumer products from candy to cars. The easing of restrictions, some of them 50 years old, came after the World Trade Organization rejected India's argument that they were necessary because of its balance of payments problems. But the impact of India's move may be muted. More than U.S. goods, India is worried about a flood of imports like textiles and toys from China, Taiwan, and Indonesia. Most affected will be India's uncompetitive but politically protected small-scale producers. As a result, a source in the commerce ministry says there is already talk about adopting high tariffs as a "legitimate weapon" against imported goods, perhaps as soon as next month.

ESTRADA'S REFORM EFFORT

▶ Philippine President Joseph Estrada is taking a new tack in his effort to attract much-needed foreign investment into the country. Faced with strong opposition that nearly paralyzed his one-and-a-half-year-old government, he has suspended plans to amend the 1987 Constitution to make it easier for foreigners to invest in vital industries. Instead, Estrada will push for passage of three pending bills in Congress that would allow more foreign investments in the power, retail trade, and banking sectors. The bills would help, but foreigners are also still scared off by a widespread perception of cronyism and corruption within Estrada's government.

EXECUTIVE SUITE

WILL COKE GO BETTER WITH CARL WARE?

He's got to soothe frayed ties at home and abroad

It looked like the end of Carl H. Ware's 26-year career at Coca-Cola Co. Last October, Ware, the company's senior black executive, checked his voice mail and was stunned to receive a message from then Chief Executive M. Douglas Ivester that he was being passed over for promotion in a management reshuffle. Ware resigned.

Now, of course, it is Ivester who is out. And Ware, 56, is back at Coke in a big way. On Jan. 4, incoming CEO Douglas N. Daft persuaded Ware to take a key spot on his new team as head of a new global public affairs unit. Ware's job is to become a roving ambassador, putting out fires and building goodwill wherever Coke does business.

It's no small irony that much of Ware's work will be repairing damage wrought by Ivester during his tumultuous two-year reign. Independent bottlers are still seething over his steep price hikes for Coke concentrate. Foreign regulators from Austria to Australia, unhappy with Coke's efforts to snatch ever more market share, now view the soda giant as the quintessential American cultural imperialist. Things are particularly bad in Europe, where Coke sales are just now recovering from last year's badly mishandled contamination scare. And back home, a wide-ranging race discrimination suit is casting a shadow over Daft's tenure before he even begins.

Daft won't discuss specifics on how he plans to tackle Coke's myriad problems before he fully takes charge in April. But he has already made clear that Coke needs to do a much better job courting business and government leaders around the globe. "We must think locally and act locally," he says.

Coke watchers say that's just why Ware was chosen to play a pivotal role in the new regime. Insiders point out that Ware first built his career in the 1970s at Coke in its governmental affairs unit dealing with local officials and community groups. Retired Coke President Donald R. Keough, now chairman of New York investment bank Allen & Co., predicts that with Ware back on board, "Coke will be able to sense the economic, political, and social sensitivities" at play in its many markets.

Ware, too, is mum as to what his first priorities will be, but outsiders agree that he must work to recast Coke as a local company in each of its far-flung markets. Likely moves will include buying more raw materials from domestic suppliers, and stepping up Coke's involvement in local affairs and charities. Ware acknowledges that he faces a tough challenge. "We've got work to do," he says.

SMART MOVES. Still, he seems well suited for the job. After an early career in Atlanta politics, he made a name for himself at Coke by defusing problems before they became full-blown crises. In 1981, Jesse Jackson, critical of Coke's hiring record and its weak support for black-owned businesses, was set to kick off a "Don't Choke on Coke" boycott. Jackson called it off after Ware helped craft a $50 million program to support black vendors.

By 1991, Keough, Ware's mentor, encouraged Ware to move into operations. Enrolling in a Harvard University management program, Ware later spent two years as a deputy group president in Europe and Africa. In 1993, he was named to head up Coke's Africa group.

Working from Atlanta headquarters, Ware dramatically built Coke's presence in Africa. One smart move: He helped organize a U.S. fund-raising tour for Nelson Mandela prior to his 1994 presidential race. That smoothed the way to renew Coke's presence in post-apartheid South Africa, where it now sells 400 million cases annually—roughly half its sales in Africa. By 1998, Coke's net operating revenues there had risen 136% over 1993 levels, to $603 million. Operating income rose 42%, to $215 million. Ware also pushed Coke to provide drought relief in Zimbabwe and refugee support in Rwanda, creating much goodwill. Can Ware do the same around the globe? It's a huge job—but it sure beats early retirement.

By Dean Foust in Atlanta

WARE: *After resigning, he's back in a pivotal role*

RESTORING A CLASSIC

As Coke's newly appointed global ambassador, Carl Ware faces huge challenges. Here are the key issues:

REBUILDING THE BRAND Following last year's contamination scares in Belgium and France, many European consumers have cooled on Coke

PATCHING UP GOVERNMENT RELATIONS Regulators from Austria to Australia have adopted a get-tough attitude, convinced that Coke is trying to monopolize local markets

IMPROVING DIVERSITY In the wake of a damaging race discrimination lawsuit, Ware, co-head of Coke's Diversity Advisory Council, will be working overtime to promote minority hiring and career development

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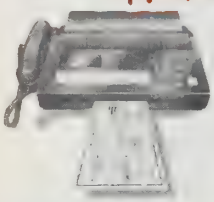

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AEROSPACE

Sometime next summer, 15 men and three women will gather on the 53rd floor of the General Electric Co. building in New York's Rockefeller Center to make one of the most important decisions in the company's 108-year history. GE's board of directors will decide on who will succeed the man widely regarded as the CEO of the century, John F. Welch. Its decision will be made under the watchful eyes of GE's 130 past and current directors, whose black-and-white portraits line the boardroom.

The photographs—a who's who of industry titans that starts in 1892 and includes Thomas Edison, J.P. Morgan, and Walter Wriston—are not just a reminder of GE's rich history and formidable position in Corporate America. They also reflect vast changes in corporate governance, as the stiff, formal pictures of white male industrialists give way to more casual photographs of executives and entrepreneurs whose ranks include women and minorities.

Now, the directors who are emblematic of that transformation can rightly call themselves a model for today's engaged and active boards. At least, that's the accolade bestowed upon them by institutional investors, governance experts, and BUSINESS WEEK's own analysis of board structure and practices. The runner-up for best board in BUSINESS WEEK's two previous reports on corporate governance, this year General Electric unseats Campbell Soup Co. atop the newest honor roll.

For the third time in four years, we surveyed Wall Street's biggest investors and most prominent governance experts for their views of the best and worst boards in America. The results, besides GE's No. 1 standing? Propelled by superior performance for shareholders, the boards of IBM, Home Depot, Intel, and Cisco Systems are also near the top. And even though governance pioneers Compaq Computer Corp. and Campbell have seen performance slump, their boards still rank among the best.

There was consistency at the bottom of the barrel as well. For the second consecutive time, the board of Walt Disney Co. was named the worst in America. CEO Michael D. Eisner, under pressure from investors ever since the board's $75 million severance package to former President Michael Ovitz

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Worst Boards

From GE at the top to Disney at the bottom, BUSINESS WEEK rates the panels that run Corporate America. *By John A. Byrne*

two years ago, is coming under increasing fire for Disney's recent lackluster performance. Institutional shareholders want Eisner to put more independent directors on a board that, despite some improvement, remains packed with Eisner chums. Since May, 1998, Disney has lost nearly 18% of its market value, more than $15 billion.

Most of the boards on the "worst" list, in contrast, end up there because of a major downturn or controversy, such as an oversized pay package or frequent repricing of stock options. Not surprisingly, then, newcomers to BUSINESS WEEK's list of rogue boards include the likes of Cendant, Rite Aid, and Waste Management. All have made headlines for financial meltdowns and performance woes that caused critics pointedly to ask, "Where was the board?"

Yet for all the continued controversy over weak boards, there's good news here, too: Situations such as those at Disney or Rite Aid are increasingly seen as an anomaly after a decade in which most large corporate boards have gone through a fairly thorough revamping.

The governance revolution that swept through Corporate

THE BEST BOARDS OF DIRECTORS

BW RANK		OVERALL SCORE	SURVEY SCORE	ANALYSIS SCORE	DETAILS	BOARD PERFORMANCE POLL: SHAREHOLDER ACCOUNTABILITY	BOARD PERFORMANCE POLL: BOARD QUALITY	BOARD PERFORMANCE POLL: BOARD INDEPENDENCE	BOARD PERFORMANCE POLL: CORPORATE PERFORMANCE	GOVERNANCE GUIDELINE ANALYSIS: SHAREHOLDER ACCOUNTABILITY	GOVERNANCE GUIDELINE ANALYSIS: BOARD QUALITY	GOVERNANCE GUIDELINE ANALYSIS: BOARD INDEPENDE
1	GENERAL ELECTRIC	81.1	46.9	34.2	Outside directors average $6.6 million in GE stock. New recruits diversify a board of heavyweights.	8.5	8.9	8.1	9.5	7.5	7.5	5.5
2.	JOHNSON & JOHNSON	76.9	30.2	46.7	Prestige board gets high marks for independence and accountability.	8.9	9.3	8.8	8.9	10.0	8.0	10.0
3.	CAMPBELL SOUP	74.7	28.9	45.8	A first? Board reduced its pay this year. Mandates stockholdings for directors and all execs.	9.1	8.8	8.9	7.0	10.0	7.5	10.0
4.	COMPAQ	74.3	26.8	47.5	Wins high marks from governance advocates despite recent poor performance.	8.5	9.0	9.0	6.8	10.0	8.5	10.0
5.	APRIA HEALTHCARE	74.1	26.6	47.5	Governance activists create model board and execute turnaround of health-care firm.	9.6	9.6	9.5	5.5	10.0	8.5	10.0
6.	INTEL	72.6	27.6	45.0	Boasts lead director to organize outside board members without management.	8.3	8.5	8.5	9.3	10.0	7.5	9.5
7	TEXAS INSTRUMENTS	70.8	25.8	45.0	Outside directors well invested in company; highly independent board.	8.7	8.7	8.3	8.7	10.0	7.0	10.0
8.	HOME DEPOT	70.4	32.1	38.3	Requires directors to visit at least 20 stores a year, yet four of 10 are insiders on board.	8.4	8.7	8.1	9.6	7.0	9.5	6.5
9	IBM	69.9	24.9	45.0	High-powered board gains high marks for performance and independence.	8.2	8.8	8.0	8.0	9.0	8.0	10.0
10.	LUCENT TECHNOLOGIES	69.3	22.6	46.7	Strong board got investor endorsement before recent surprise earnings drop.	8.1	8.0	7.9	8.0	9.0	9.0	10.0
11.	CISCO SYSTEMS	68.9	25.6	43.3	Investors praise huge stock gains at high-tech darling with small board.	8.1	8.0	7.9	10.0	10.0	8.0	8.0
12.	MERCK	68.9	25.6	43.3	Only two insiders on 14-member board that includes new CEO from HP.	9.7	9.7	8.7	8.7	8.0	8.0	10.0
13.	BRISTOL MYERS SQUIBB	67.6	22.6	45.0	Prestige board boasts CEOs of IBM, Volvo, Textron, and Lockheed Martin.	8.0	7.9	8.0	8.1	8.0	9.0	10.0
14.	ALLIEDSIGNAL	66.9	24.3	42.6	Merger with Honeywell wins praise for creating shareholder value.	8.1	8.0	7.9	8.0	9.0	6.5	10.0
15.	DELL COMPUTER	66.8	23.5	43.3	Founder Michael Dell is only insider on highly independent 10-member board.	8.1	8.0	7.9	9.4	9.0	8.0	9.0
16.	APPLE COMPUTER	66.6	24.1	42.5	Turnaround wins plaudits for board enhanced by addition of CEO of Gap.	8.7	8.7	8.7	8.3	7.5	8.0	10.0
17.	AMERICAN EXPRESS	65.1	24.3	40.8	Evaluates board performance and asks directors to own 10,000 shares each.	8.1	8.0	7.9	8.0	9.0	6.5	9.0
18.	EXXON	63.9	23.9	40.0	Investors applaud Mobil merger and performance, but many directors overextended.	9.0	7.3	9.0	7.5	9.0	7.5	7.5
19.	CITIGROUP	60.2	23.5	36.7	Board boasts CEOs of seven firms, including AT&T, Alcoa, Chevron, and Monsanto.	8.8	8.0	7.2	8.0	10.0	6.0	6.0
20.	WAL-MART STORES	59.6	24.6	35.0	Retail star would rank higher if not for business deals with several directors.	8.7	8.0	7.9	9.3	9.0	7.0	5.0
21	HEWLETT-PACKARD	59.3	22.6	36.7	Board hiked stock ownership rules for directors to minimum of $200K each.	7.5	8.0	8.0	8.5	7.0	8.0	7.0
22.	PFIZER	59.3	26.0	33.3	Governance booster, but many directors own little stock and are on too many boards.	8.2	9.0	8.8	7.2	4.0	6.5	9.5
23	McDONALDS	59.3	22.6	36.7	Requires directors to own at least $175K of stock each after five years.	8.1	8.0	7.9	8.0	8.0	7.0	7.0
24.	COCA-COLA	56.8	23.5	33.3	Investors voice approval for board pressure that led to CEO's early departure.	7.8	8.4	8.0	8.2	8.0	7.0	5.0
25	FORD MOTOR	53.0	20.5	32.5	Ford family still dominates board with only one outside CEO of major company.	6.0	8.0	6.0	8.7	10.0	7.0	2.5

The highest possible score in this ranking is 100, with half the points coming from BUSINESS WEEK's survey of money managers and governance experts and half from an analysis of the makeup of each board. For each individual category, the maximum score is 10.

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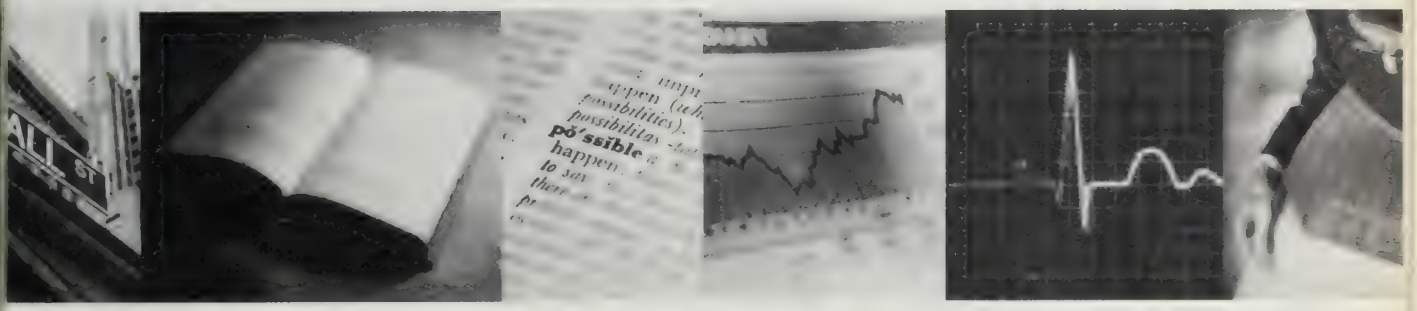

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America's boardrooms in the 1990s has led to far more active oversight. Composed largely of independent directors, they are more accountable than ever. Directors, who rarely if ever bought a single share of their company's stock in the past, are often significantly invested today. And in the face of shareholder dissatisfaction, they are far more likely to demand change. "All the big rhetorical battles are over," comments James E. Heard, chairman of Proxy Monitor and a longtime player in governance circles. "With the exception of a few rogues, most boards are doing the job they're supposed to do."

If the governance battle has large ly been won at big companies, how ever, the war is hardly over. Now, in vestor attention is shifting toward midsize and smalle companies. Many have boards that are far from independen and they often flout the most rudimentary governance guide lines. Says Richard H. Koppes, a consulting professor of law at Stanford University: "That's where the activists are aim ing their guns."

One recent example: The California Public Employees Re tirement System (Calpers) is in the midst of a push to ge

THE WORST BOARDS OF DIRECTORS

BW RANK		OVERALL SCORE	SURVEY SCORE	ANALYSIS SCORE	DETAILS	BOARD PERFORMANCE POLL: SHAREHOLDER ACCOUNTABILITY	BOARD PERFORMANCE POLL: BOARD QUALITY	BOARD PERFORMANCE POLL: BOARD INDEPENDENCE	BOARD PERFORMANCE POLL: CORPORATE PERFORMANCE	GOVERNANCE GUIDELINE ANALYSIS: SHAREHOLDER ACCOUNTABILITY	GOVERNANCE GUIDELINE ANALYSIS: BOARD QUALITY	GOVERNANCE GUIDELINE ANALYSIS: BOARD INDEPENDE
1.	DISNEY	14.0	–16.8	30.8	Board reforms viewed as token gestures as Disney performance lags.	3.2	3.5	2.4	4.0	9.0	7.5	2.0
2.	RITE AID	16.1	–1.9	18.0	Audit panel met just twice last year; interim chairman missed 37% of meetings.	3.3	3.6	2.6	3.5	4.5	6.0	–1.5
3.	FIRST UNION	18.5	1.7	15.8	Unwieldy board of 27 members rife with potential conflicts.	3.3	3.6	3.8	2.1	1.5	6.0	2.0
4.	CENDANT	20.5	–9.5	30.0	Board gets blame for accounting meltdown and stock repricing.	2.2	2.6	2.1	1.9	9.0	8.0	1.0
5.	DILLARDS	24.8	7.3	17.5	Dillards family dominates board of poorly performing retailer.	4.8	5.1	4.3	3.6	6.0	5.5	–1.0
6.	STARWOOD HOTEL	27.8	7.8	20.0	Board loaded with insiders and friends of founder CEO.	3.6	4.2	3.6	3.1	8.0	5.0	–1.0
7.	WARNACO	29.6	4.6	25.0	Small clubby board dominated by CEO in poorly performing company.	3.6	4.2	3.6	2.1	6.0	7.0	2.0
8.	WASTE MANAGEMENT	29.6	–6.2	35.8	Insider trading charges hurt board that has adopted many best practices.	4.3	4.6	5.6	1.7	7.0	5.5	9.0
9.	ARCHER DANIELS MIDLAND	29.9	–8.4	38.3	Dubious distinction: Board makes worst list for third time in a row.	2.8	3.1	2.0	2.6	8.0	8.0	7.0
10.	BANKAMERICA	30.8	6.6	24.2	Big merger still leaves big board with lots of ties to CEO McColl.	3.8	4.4	3.8	3.3	9.0	4.5	1.0
11.	FRUIT OF THE LOOM	35.4	2.9	32.5	Shareholders blame board for Chapter 11 bankruptcy filing in December.	2.0	3.2	2.4	1.0	6.0	6.5	7.0
12.	MAXXAM	35.5	1.3	34.2	Small, cozy board dominated by CEO. Makes repeat showing on worst list.	2.3	2.6	2.3	2.8	6.5	6.0	8.0
13.	GENERAL MOTORS	36.4	–4.4	40.8	Lagging performance and overextended directors trouble impatient shareholders.	2.7	3.7	5.0	3.7	10.0	5.5	9.0
14.	TENNECO AUTOMOTIVE	36.2	3.0	40.0	Investors decry poor performance of company under CEO Dana Mead.	3.3	3.6	3.3	2.6	7.0	9.0	8.0
15.	HUMANA	37.8	5.3	32.5	Return of former CEO by friendly board fails to halt stock plummet.	3.6	4.2	3.6	3.1	7.0	7.5	5.0
16.	MATTEL	38.0	4.7	33.3	Weak performance and management upheaval upset shareholders.	3.6	4.2	3.6	3.1	7.0	8.0	5.0
17.	OGDEN	38.6	5.3	33.3	Earnings shortfall damage stock, causing CEO resignation.	3.6	3.2	3.6	2.1	4.0	7.0	9.0
18.	DUN & BRADSTREET	38.6	5.3	33.3	Many directors own little stock in weakly performing company.	3.6	4.2	3.6	3.1	3.0	7.0	10.0
19.	KMART	41.2	–1.3	42.5	Lagging performance lands retailer on worst list for third time.	2.6	3.7	5.5	2.1	9.0	6.5	10.0
20.	OCCIDENTAL PETROLEUM	41.5	3.2	38.3	Lawsuit over CEO's pay led board to overhaul its governance standards.	3.3	4.0	5.0	4.8	7.0	8.0	8.0
21.	ADVANCED MICRO DEVICES	42.1	2.1	40.0	Under pressure, the company agreed to increase the board's independence.	3.0	4.0	3.7	2.7	9.0	10.0	5.0
22.	TOYS 'R' US	43.7	4.5	39.2	Board hires new CEO to lift sagging fortunes that led stock to 12-year low.	3.3	3.6	3.8	2.6	6.0	8.5	9.0
23.	AUTODESK	45.4	7.1	38.3	Pension funds irked by weak results and underinvested directors.	3.0	3.8	4.6	4.0	6.0	8.0	9.0
24.	SEARS	48.7	4.5	44.2	Lackluster performance making shareholders restless.	4.3	4.0	4.7	4.3	9.0	7.5	10.0
25.	COMPUTER ASSOCIATES	50.7	9.9	40.8	Outsized stock award enrages investors who question board independence.	3.8	5.0	4.6	6.4	8.5	8.0	8.0

The highest possible score in this ranking is 100, with half the points coming from business week's survey of money managers and governance experts and half from an analysis of the makeup of each board. For each individual category, the maximum score is 10.

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Tyson Foods Inc. to ditch a dual-class stock that allows Senior Chairman Don Tyson to control nearly 90% of the company's voting power. Calpers also is encouraging other investors in Tyson, where it holds 1.8 million shares, to withhold votes from two directors related to Chairman John H. Tyson. And in a new twist that could lead to an explosion in governance activism, Calpers and others are now using the Net to rally shareholder support (page 150).

The focus on smaller companies isn't the only big shift under way as the maturing U.S. governance movement looks for new targets. Many U.S. institutional investors and local gadflies are starting to focus on overseas boards. European pension funds are getting into the act as well. Lens Inc., the Washington-based activist investment fund, has teamed with Hermes Pension Management Ltd. to prod laggard European performers. The world's largest pension fund, the $255 billion Teachers Insurance & Annuity Assn./College Retirement Equities Fund (TIAA-CREF), also is aiming to boost initiatives abroad.

Last year, for example, the fund found itself in the middle of a bitter debate in Italy when Telecom Italia proposed a spin-off of its wireless and Internet operations. TIAA-CREF and other investors argued that the transaction unfairly benefited Olivetti, which held a big stake in a Telecom Italia holding company. The campaign halted the sale, but Peter C. Clapman, the fund's chief counsel for investments, warns that American investors need to tread carefully in such overseas battles. In France, he notes, media reports hinted that a recent downsizing at Michelin was motivated by U.S. pension funds' demanding higher profits. "To become more efficient, a lot of these companies have to restructure and downsize anyway, but they could blame U.S. shareholders for it," says Clapman. "So we're trying hard to work behind the scenes and not be made a whipping boy."

ATTRIBUTES OF A GOOD BOARD

INDEPENDENCE

Friends and cronies of the CEO are out. Crucial panels like audit should contain no insiders. Cross-directorships are taboo

QUALITY

Board meetings should include real, open debate. Directors need to be familiar with managers and conditions in the field

MEASURING UP. To take the measure of governance in the U.S., BUSINESS WEEK polled 522 of the nation's largest pension funds and money managers, as well as authorities on directors and boards. They were asked to name the most and least effective boards and to grade them on a scale of 0 (poor) to 10 (excellent) in four broad categories: accountability to shareholders, quality of directors, independence, and corporate performance. A total of 99 replied, a response rate of 19% (page 152).

The 126 companies they identified were measured against a set of guidelines that have won broad acceptance among many chief executives, directors, and governance gurus. Boards won points if they met the criteria and lost points if they didn't. In judging independence, for instance, a board earned top points if it had no more than two inside directors; only outsiders on its audit, nominating, and compensation committees; no outside board members who directly or indirectly drew consulting, legal, or other fees from the company; and no interlocking directorships.

Measuring the effectiveness of a board by how it stacks up against such guidelines is not without controversy. "The most important governance standards cannot be externally measured," maintains John C. Wilcox, vice-chairman of Georgeson Shareholders Communications Inc., a proxy advisory firm. "They include qualities of character, values, the willingness to take an independent stand, and other personal factors that are highly visible in the boardroom but invisible from outside."

Of course, the ultimate test of a board's effectiveness is long-term performance. In that arena, few can beat this year's No. 1, General Electric. Under its celebrated chieftain, GE's market value has risen to nearly $500 billion from just $13.9 billion when Welch became CEO in April 1981. In most other ways too, GE's board has the basics down pat: The vast majority of the board's 18 members are independent. Its audit, compensation, and nominating committees include no company insiders. And the interests of outside directors, who each own an average $6.6 million of GE stock, are clearly aligned with shareholders.

But just as important are smart practices that help keep directors abreast of the business long before problems get out of control. GE's directors say that open, frank discussions are a hallmark of their meetings. The tone is clearly set by Welch. Presentations by senior management, for example, are not choreographed exercises with little time for questions and challenges. "Jack creates a freewheeling environment where directors are encouraged to speak up," says Director Gertrude G. Michelson, a former senior vice-president of R.H. Macy & Co. who in 1976 became the first woman to serve on GE's board. "He invites and enjoys debate."

CASUAL LUNCH. Moreover, GE's board has made an almost religious practice of ensuring that directors meet often with lower level GE execs without Welch present—a practice all too infrequent elsewhere in Corporate America. Indeed, Welch's biggest innovation may be ensuring the board's deep involvement in what is the most watched CEO succession ever.

ACCOUNTABILITY

Directors ought to hold serious stakes in the company. They should also be prepared to challenge under-performing CEOs

It started some four years ago when, at Welch's suggestion, GE's five-person management development committee began a series of two- to three-day trips into the field to meet alone with Welch's potential successors. Directors saw division heads and key players, who not only provided a formal overview of strategy and operations but also talked more informally with board members over lunch or dinner. "That is very unique, not only for a board, but for a CEO to let a board do it," says Director Silas Cathcart, former

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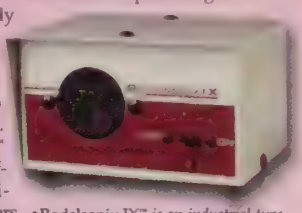

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Yet GE isn't the only board to attract attention—or imitators—to the innovative practices it has put in place. No. 8-ranked Home Depot Inc., for example, requires each of its outside directors to formally visit five company stores every quarter. It's a rule the board takes seriously. Earlier this year, Director Johnnetta Cole resigned her seat largely because she did not have time for the visits.

SLASHED PAY. The store trips equip board members with firsthand information, allowing them to play a more rigorous role. When staffers told directors last year that they were no longer getting customer service training because the outlets were too busy to spare them, board members raised the complaints with top management. The result: Home Depot opened stores an hour later on Sunday so the day could start with an hour of training every week.

Nor have directors at No. 3-ranked Campbell Soup Inc., which has consistently won plaudits for setting strategy and handling CEO succession, sat on their governance laurels. Last year, each of the company's 16 directors evaluated his or her own effectiveness against 35 criteria in an effort to improve their contributions. The board also did the unthinkable: After ordering up a survey of director pay, members decided they earned too much. The directors then slashed the value of their annual compensation to $113,000, from $160,000.

On the bottom half of the list, Disney's sagging fortunes have turned up the pressure on CEO Eisner, who has tried to soothe critics by making several governance changes. Eisner put two new independent directors on his board in 1998 when two insiders resigned. He agreed to annual elections of all directors by 2001 and allowed an anti-takeover poison-pill plan to expire last year. He also changed the makeup of the audit, compensation, and executive development committees, ensuring they are composed entirely of outsiders.

Even so, Eisner has steadfastly refused to rid Disney's board of his many friends and acquaintances. The board still includes Eisner's attorney, his architect, the principal of an elementary school once attended by his children, and the president of a university that received a $1 million Eisner donation. That's why many view the changes as token gestures, rather

NOW, A GADFLY CAN BITE 24 HOURS A DAY

As if the occasional gadfly at the annual shareholders' meeting was not enough of a nuisance, CEOs will soon have to tangle with a potentially more powerful form of shareholder activism: organized cybercampaigns.

Ever since the rise of the Net, chat rooms and message boards have overflowed with anonymous criticism of boards. But the level of discourse and the power of some participants are rising. "The Web will change the face of activism in the future," predicts Patrick S. McGurn, of Institutional Shareholder Services Inc., a proxy advisory firm. "It promises to increase activism and to perhaps radicalize smaller investors."

EASY ACCESS. Already, the powerful California Public Employees' Retirement System (CalPERS) and the Domini Social Equity Fund broadcast their planned votes on proxy issues over the Web. Activist investors, from Greenway Partners LP to Lens Inc., now use the Net to prod underperforming managers and boards. And the AFL-CIO's pension funds attempt to stir up debate on CEO pay by using the Web to publicize the issue at the top 500 public companies.

For shareholder activists and gadflies, the Web makes it easier and cheaper to contact and organize other investors. "Think about the cost of doing a mailing to all of a company's shareholders," says Damon A. Silvers, associate general counsel of the AFL-CIO. "On a Web site, you can gain access to everybody."

What's more, CalPERS has found that if you put it up on a Web site, people will indeed come. When the fund began posting its votes on proxy issues last spring, the site received more than 30,000 hits per month. The goal is to post votes two weeks prior to an annual meeting so that shareholders can follow its lead. "We're seeking to influence people's opinions on issues," says Kayla J. Gillan, general counsel of CalPERS.

By clicking on the pension fund Web site, for example, investors can find that it plans to withhold votes in January alone for the election of some directors at Tyson Foods, Emerson Electric, and Micron Technology. The reason: Some board members have business or personal relationships with the company or top management that CalPERS believes can compromise their independence. This spring, the fund will broadcast its votes on 300 companies, up from 100 last year.

The most ambitious effort to use the Web as a tool to champion change will debut over the next few weeks with the appearance of eRaider.com. The idea, hatched by two business school professors, is to create a place where investors can organize to target what they call "sleepy, selfish, or unfocused" managers and boards. Discussions will be led by experts in accounting, finance, and governance.

The site will pack an extra wallop because the organizers are putting together a mutual fund to buy into underperformers and hector them to improve. "We'll organize interest on the Net among investors," says Aaron Brown, eRaider cofounder and a finance professor at Yeshiva University. "Oversight by 50 or 60 people communicating on message boards is better than one overworked stock analyst."

The Web, thinks Brown, can be used to transform small investors, who routinely side with management, into active shareholders. "There are lazy and incompetent boards out there, but there also are boards that have no idea what shareholders want," says Brown. "The Web will allow investors to say how their companies should be managed."

It's enough to make a CEO sentimental about the good old days when gadflies were little more than an annual annoyance.

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than real reform. "Any improvements are a step in the right direction, but Disney has not leaped forward in a brave new direction," says Ann Yerger, director of research for the Council of Institutional Investors. Eisner refused to comment, but a company spokesman rebuffs the continued complaints. "There comes a point when you have to say that we have to make the decisions about the company," he says.

Disney isn't the only hardy perennial to show up on the wrong side of the governance fence. Other repeat performers include Archer Daniels Midland Co. and Advanced Micro Devices Inc. ADM has only five independent directors out of a dozen and, like Advanced Micro, also has at least one non-independent board member on its nominating, compensation, and audit committees. Governance experts say the work of these key committees should be done solely by outsiders to quash potential conflicts of interest.

A NIGHTMARE. And two newcomers, Rite Aid Corp. and Cendant Corp., show up just behind Disney in the No. 2 and No. 4 spots. Accounting scandals at both concerns led to management upheavals and probes by the Securities & Exchange Commission. These problems have raised serious questions about their boards. At Rite Aid, which has restated its financial results for the previous three years, the audit committee met only twice in fiscal 1999. Four of the company's nine directors were insiders, and five board members are 70 or older. "It's a corporate governance nightmare," says Stanford's Koppes.

Good governance, however, is no guarantee of superior performance, as clearly demonstrated by the recent results at Campbell Soup and Compaq. In the past 18 months, the performances of both companies have badly trailed their industry peers and the Standard & Poor's 500-stock index. At Compaq, which boasts a highly independent board with a powerful and influential nonexecutive chairman, Benjamin Rosen, directors were unable to successfully recruit a top-qualified CEO from outside after ousting their second chief executive officer in five years. Some blamed the search's failure on Rosen, an irony of sorts because many governance gurus have long advocated having a strong chairman separate from the CEO. "Candidates were afraid of potent backseat driving," says Patrick McGu of Institutional Shareholder Servic Inc., a proxy advisory firm. "If Compaq can screw up such key function, what happens in companies with crummy gove nance systems?"

Even so, it's hard to argue against adopting good gove nance. "You are never going to be guaranteed total success says Charles Elson, a law professor and board membe "But good governance gives you protection when things g wrong. In the long run, that will play out." Or so GE shareholders will be hoping when the board finally fil Welch's shoes.

GOOD AND BAD BOARDS BY THE NUMBERS

Determining the effectiveness of a board of directors is hardly foolproof. What goes on behind the boardroom doors is known only to the directors at the table.

So how does BUSINESS WEEK judge Corporate America's boards? In the absence of a front-row seat, we gather the views of the nation's largest institutional investors as well as governance experts. Then we measure each board's independence, quality, and accountability to shareholders.

We added one new change in this third board ranking. As audit committee performance has become a key governance issue, BUSINESS WEEK began to assess whether that important panel was properly composed, or met often enough, to do its job well.

BOARD PERFORMANCE POLL. Harris Interactive Inc., the well-known pollster, sent questionnaires to 457 of the largest money-management firms and corporate, public, and union pension funds. Harris also surveyed 65 of the nation's leading governance experts. Of 522 surveys sent, 99 were answered, a response rate of 19%. The money managers and funds manage over $1 trillion in equity.

The surveys asked respondents to identify the most effective and least effective boards. The company cited most often for having an effective board got 25 points, while the company gaining the most mentions for having an ineffective one lost 25 points. Up to 25 more points were awarded or subtracted on the basis of grades respondents gave in four categories: shareholder accountability, quality of directors, independence, and corporate performance.

GOVERNANCE GUIDELINE ANALYSIS. Next, we measured companies singled out for having either the most or least effective boards against a set of guidelines, or "best practices," identified by governance experts. For boardroom data, we examined companies' proxy statements. Points were given to boards and directors who met the best practices criteria. Points were subtracted when they fell below the standards.

To judge independence, a board scored points if it has no more than two inside directors; no insiders on its audit, nominating, and compensation committees; no outside members who directly or indirectly draw consulting, legal, or other fees from the company; and no interlocking directorships (CEOs who sit on one another's boards). If outside directors regularly met without the CEO, a board got extra points.

> Why some got extra credit, some got demerits

To assess accountability to shareholders, a board scored points when directors own a minimum of $100,000 worth of stock. That helps align their interests with those of the shareholders. More points were awarded if a company does not offer pensions to directors and if the board stands for election every year. Points also were given to boards that met at least four times a year and those whose audit committees met at least three times annually. Boards that assess their own performance also won points.

To measure board quality, BUSINESS WEEK awarded points if fully employed directors sit on no more than three boards and retired directors on no more than six. More points were given if a board has at least one outsider experienced in the company's core business and at least one outsider on the audit committee with a financial or accounting background. A board lost points if any of its directors failed to attend at least 25% of its meetings.

COMPOSITE RANKING. To produce an overall ranking, the raw scores from the poll and the board analysis were combined. A maximum of 100 points could be scored, half based on the poll results and half on the analysis of proxy data.

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THE INTERNET

IS WINDOWS READY TO RUN E-BUSINESS?

So says Microsoft–and corporations are starting to listen

When Microsoft Corp. bought Hotmail Inc. for $395 million two years ago, the free-e-mail pioneer had 10 million members and ran on mighty Unix computers—not PC servers powered by Microsoft's Windows NT operating system. Now, with Hotmail boasting more than 50 million accounts, the key parts of the site are still running on Unix—in spite of Microsoft's desire to switch to its own software. Even more embarrassing: Hotmail founder Sabeer Bhatia, who left Microsoft last March to start his own e-commerce-services company, Arzoo! Inc., is relieved to once again use 100% Unix. "I'm out of Microsoft now—so no NT," he says with a smirk.

Poor Microsoft. While the software giant is the dominant force in the PC industry, it has a long way to go when it comes to providing the technology underpinnings for the Web. That makes the company vulnerable: Increasingly, corporations are spending their technology dollars on Internet-related products rather than traditional software. In short, corporate computing is fast becoming Web computing. In this new world, Microsoft is playing catch-up with competitors such as Sun Microsystems Inc. For example, Microsoft's share of the market for Web-site server software is a modest 25%, according to survey company Netcraft Inc.

BILLION-DOLLAR BABY. For Microsoft, the stakes are huge: The total market for corporate infrastructure software is expected to top $56 billion in 2002, according to International Data Corp. If the Redmond (Wash.) giant is to hold on to its spot as the world's most valuable company, with a $600 billion market cap, it has to take the lead in providing a foundation for Internet computing. Chairman William H. Gates III wants nothing less than a sweeping victory. His strategy is to create a virtual Web operating system—call it Windows for the Web—that's as vital for corporations, tech companies, and consumers as Windows is on the PC. "This is life itself to Microsoft. We either do this or we shouldn't do anything," says President Steven A. Ballmer. The ultimate goal? "We hope to have a strong position—like with Windows."

The first step in Microsoft's Web plan is Windows 2000, the company's most important product update since Windows 95. Scheduled for release on Feb. 17, the operating-system update for corporations took four years to complete and cost Microsoft more than $1 billion to develop. It includes an update to the Windows desktop, but the important changes are in the version for server computers, which manages corporate networks, runs applications such as accounting or e-mail, and serves up Web pages from company sites. It offers zippy new features including directory services—which lets corporations keep track of every employee, computer, software package, and even each scrap of data in one place. It's easier to set up than previous versions and doesn't crash as often. Perhaps most appealing, a server computer running Windows 2000 can be as little as one-third of the cost of a comparable Unix system. An even more potent version of the software is scheduled to be introduced in August.

No question, this is a big leap forward for Microsoft. The new operating system should help the company grab market share in the high-end corporate and Web computing markets, although Unix is expected to remain the mainstay for many years. The company's share of the server software licenses sold is expected to climb to 43.5% in 2002, compared with 38% now, according to International Data. That should help Microsoft's revenues soar. Neil J. Herman, an analyst at Salomon Smith Barney, is predicting that Windows 2000 for PCs and servers combined could bring in $20 billion in revenues over the next three years—in large part due to upgrades of the desktop version. "There's going to be mass adoption," says Herman, who expects Microsoft's net income to surge 25% for the fiscal year ending in June, 2001, to $11.5 billion.

And Windows 2000 is just the beginning of Microsoft's

·b strategy. In the next two years, llmer says, the company aims to de- er something much grander. It's ready- g a set of services designed to manage lividuals' computing experiences ıether they're at the office, on a busi- ss trip, or at home—using a PC, mobile vice, or interactive-TV appliance. These rvices, to be sold to corporations and nsumers, will do everything from stor- g files and data to bringing together d analyzing information from a de variety of sources to auto- atically arranging appoint- ents with business col- agues or friends. The mpany is working on im- ovements to the browser, Windows, and server application software to make all of this possible. "It's a version of Windows that lives on the Web and all users share," says Ballmer.

But Microsoft's vision may be tough to realize. The company is unlikely to be able to repeat the dominance it has in the PC market on the Net. Web-site operators and developers tend to be wary of the software giant. Many of the hot applications are built with Unix in mind. For instance, only 5% of the e-commerce software that BroadVision Inc. sells runs on Windows. And its competitors are ferocious. The AOL-Time Warner merger doesn't harm Microsoft

At stake: A Web software market worth billions. Says company President Ballmer: "This is life itself to Microsoft"

in this sphere, but Sun, Oracle, and IBM are every bit Microsoft's match in corporate computing and are all vying to provide the basics for Web computing. "Many companies will succeed, rather than one dominating the marketplace," says analyst Chris Shilakes of Merrill Lynch & Co.

Perhaps the biggest problem is that, on the Internet, it does not matter so much anymore what operating system people use. Browsers and Web sites are built on standard technologies, so people don't have to rely on Microsoft and its Windows operat-

ing system to assure compatibility between machines and programs. "The Internet itself is now the operating system, and Microsoft doesn't own it," says Kevin Harvey, a general partner at venture firm Benchmark Capital in Menlo Park, Calif.

Not that Microsoft isn't trying. With $19 billion in cash on its balance sheet at last count, the company can afford to open its fat wallet to curry favor with developers, customers, and technology partners. The software giant spent $9.9 billion on equity investments and acquisitions alone last year. The biggest was its $5 billion investment in long-distance giant AT&T—to which Microsoft hopes to sell millions of copies of its interactive-TV software. Hardly a month goes by without a new deal popping up. Just last month, Microsoft invested $200 million in electronics retailer Best Buy Inc. in exchange for Best Buy's promoting MSN Internet access services and building its new Web site with Microsoft technology.

TARGET: DOT.COM. Windows 2000 is Microsoft's heavy artillery in the Web market, though. Web sites and corporate Web applications still need to run on servers, and Microsoft designed Windows 2000 to do a host of new things that are vital on the Internet. Besides being more reliable than Windows NT, it's capable of handling extremely demanding computing tasks such as order processing. The Data Center Inc. version of the product, due out within six months, can be tuned by computer makers to run on machines with up to 32 microprocessors—satisfying the needs of all but the most demanding Web operators. And four machines can be clustered together to prevent the service interruptions that are disastrous for Web sites.

To gain credibility and hasten adoption of Windows 2000, the company recruited more than 100 customers who started up new computing projects on 1,500 servers even before the product's official launch date. Already, some of Microsoft's joint development partners have used the test version for crucial Web projects. Barnesandnoble.com Inc., for instance, handled its warehouse and order-fulfillment operations without a hitch during the holiday rush with Windows 2000. "We couldn't have handled the volume without it," says Gary King, the Web site's chief information officer.

And with the Windows 2000 launch on Feb. 17, Microsoft soon will make a sales pitch you can't avoid. The company is spending $200 million-plus to blanket television, print, and Net outlets with an ad campaign designed to steal IBM's thunder as the most trusted e-business company. Following the lead of Sun and others, Microsoft is setting up a 100-person sales team that will target dot.coms and corporations embroiled in e-engineering projects. Startups also will get spots in Microsoft booths at trade shows to show their products and will get discounts on advertising.

The company isn't neglecting the world's 6 million programmers, either. About half of them already are dedicated users of Microsoft's Visual Basic programming tool, and now the company is trying to persuade them and a host of Web-site developers to use its array of tools for Internet projects. A new generation of Microsoft programming tools, due out this year, is supposed to help developers stitch together an individual's favorite Web sites into a single personal portal—mixing and matching information from different sources.

This kind of cross-site programming has already

Windows vs. the World

How four major operating systems for corporate computing stack up against each other

DATA: INTERNATIONAL DATA CORP

STEVE BALLMER

SCOTT McNEALY

WINDOWS 2000
Microsoft

"Windows 2000 is the next major step forward for the PC and a bridge between the PC and the Web"

WHAT'S NEW Improvements in reliability and the ability to manage computer networks less expensively. Handles some of the more demanding computing jobs, such as managing major Web sites.

STRENGTHS It is inexpensive. Used with servers based on Intel microprocessors, it's about one-third as expensive as Unix-based combos from the likes of Sun.

WEAKNESSES It still can't run on the most powerful servers, and many computer systems administrators don't trust it for complex computing tasks.

SERVER MARKET SHARE 38.3% in 1998.

SOLARIS 8
Sun Microsystems

"Microsoft has never innovated on anything. They've acquired or stolen their way to everything"

WHAT'S NEW Solaris handles servers with as many as 64 microprocessors—compared with 32 for Windows 2000. Also, eight computers can be clustered together to work as one, compared with four for Windows 2000.

STRENGTHS Solaris has emerged as the server operating system of choice for large Web sites. It's super-reliable and handles the most demanding tasks.

WEAKNESSES It is more expensive than Windows 2000 systems, though Sun is now pushing Solaris for use on Intel machines for the lower end of the market.

MARKET SHARE Total Unix was 18.8% in 1998. ➡

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shown up in a rudimentary way on Microsoft's MSN Web portal. Late last year, the company introduced Microsoft Passport, the first of its "megaservices," which allows consumers to fill out sign-on and payment forms once and then use them on other Web sites. So far, there are more than 100, from buy.com to Costco Online. Next up: parental consent, calendar, and community chat services that can be shared among Web sites. "Frankly, over time, all the things we do with MSN will be offered to others," says Yusuf Mehdi, marketing director at MSN.

GROUNDWORK. To make its MSN services even more attractive to other Web sites, Microsoft is becoming the Daddy Warbucks of the Internet world. For instance, it's giving away the Passport service to Web sites for a year. Buy.com Inc. joined the program early and is featured prominently on Microsoft's Web site and in marketing materials. Now, the company plans to plug into more MSN services as they emerge. "I leverage their R&D budget, and I can concentrate on building my own products," says Anthony A. McAlister, buy.com's vice-president for information services.

Microsoft's groundwork is already starting to pay off. Corporate customers who have tested early versions of Windows 2000 plan aggressive rollouts. Ford Motor Co., for instance, plans on using Windows 2000 to handle basic networking and e-mail for about 100,000 employees by June. And the software is finally graduating to handle some of its high-powered projects: a new build-to-order system for Net sales, for instance. "They clearly have what they need to be a key player on the Web," says Ford CIO James A. Yost.

BARNESANDNOBLE.COM'S KING: *A satisfied Windows 2000 customer*

A smattering of dot.coms are jumping on the Windows 2000 bandwagon, too. Search engines Ask Jeeves Inc. and Hotbot.com have just started to switch over—and hotbot.com says its application runs 50% faster on the new software than it did on Windows N CenterBeam Inc. in Santa Clara, Calif has just started offering entire comput ing systems to companies for a monthl subscription fee. That includes every thing from computers and software t Web connections—and all of it based o Windows 2000. Because all of the cor software comes from one supplier, th pieces function smoothly together. "I works. It doesn't ever crash. That's big deal," says CenterBeam Chairma and CEO Sheldon Laube.

CHOICES. In the world of high-end cor porate computing, though, Microsoft sti has difficulty competing head-to-hea with the most powerful Unix system from Hewlett-Packard, IBM, and Su that are used for huge banking and bro kerage applications and the like. Sur for instance, is releasing a new versio of its Solaris operating system thi month that supports up to 64 micro processors on one computer and allow up to eight computers to be clustere together for extra power and reliabili ty—twice what Windows 2000 will han dle. Sun CEO Scott G. McNealy smugl refers to Windows 2000 as "Microsoft W2K problem" and vows that it wi never catch up.

Each of Microsoft's major rivals ha its strengths. The Linux operating sys tem is essentially free—and even Micro soft can't trump that. IBM of fers companies a vast arra of software and unmatched consulting services. Sun has

ERIC SCHMIDT

BOB YOUNG

NETWARE 5.1

Novell

"The Windows 2000 delay [it was two years late] has certainly helped our business–no question"

WHAT'S NEW Novell's directory software now runs on Windows 2000, Solaris, and Linux servers as well as NetWare, making it easier for companies to manage complex networks.

STRENGTHS The directory software for keeping track of computers, programs, and people on a network has proved vital to companies such as Ford and Wal-Mart, and this update keeps it ahead.

WEAKNESSES NetWare is primarily a networking system—not able to run general applications such as databases or accounting.

MARKET SHARE 22.8% in 1998.

RED HAT LINUX 6.1

Red Hat Software

"We can build a faster operating system because we don't have to support all that old technology"

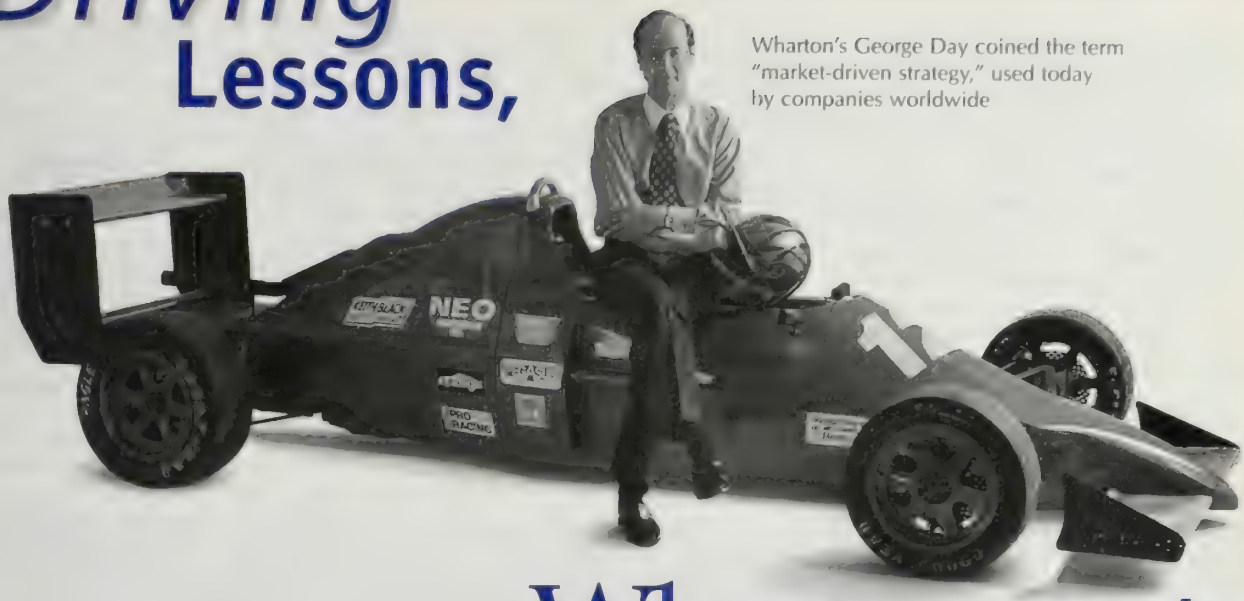
WHAT'S NEW It's easier to install than it used to be. Also, customers can now cluster up to eight servers—which means better reliability.

STRENGTHS Red Hat taps into tens of thousands of volunteer programmers who help out with improvements to the open-source Linux operating system. Plus, Red Hat's server package is nearly free: $149.

WEAKNESSES Linux is good for serving up Web pages, but it isn't as effective as Windows 2000 at handling more complex jobs.

MARKET SHARE Total Linux was 15.8% in 1998.

Driving Lessons,



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Java, which is becoming the programming language of choice for assembling complex Web sites and projects. And Oracle Corp. is urging Web site developers to use its database software to store and manage everything from Web pages to e-mail—and megasites such as eBay Inc. are going along. "They can build the entire site on the database," says Oracle CEO Lawrence J. Ellison.

Potentially even more threatening to Microsoft, a number of Web sites are being built so they aren't so dependent on the underlying operating system. For example, Sparks.com, an online greeting-card site, uses software from BEA Systems Inc. that allowed it to easily shift from Windows to Sun Solaris in December to gear up for the Christmas rush. It didn't think Windows could handle the load. The switch took just one week, and Sparks.com didn't have to rewrite a line of code. Says BEA CEO William T. Coleman III: "This makes us the platform for the Web, the way Microsoft is the platform for the PC."

Hyperbole aside, the challenge to Microsoft is clear: Web kingpins and corporate computing czars now have a host of alternatives to its technology. The software giant seems to recognize that—and has even begun playing the game a little differently. In one telling example, it embraced an industry standard for communicating about products and services over the Web. And it's building better links between its products and those supplied by rivals.

Still, Microsoft doesn't plan on giving up on the notion of owning and controlling most of the technology it packs into its products. And even though the company has dropped some of its hardball tactics in response to the government's ongoing antitrust case, it's still competing vigorously in dozens of markets. Expect Gates and Ballmer to stop at almost nothing to make Windows rule again—this time as the dominant operating system for the Web.

By Steve Hamm in New York and Peter Burrows and Andy Reinhardt in San Mateo, Calif.

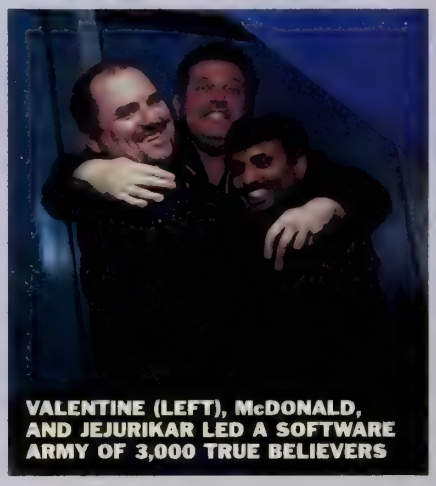
THE LONG MARCH OF WINDOWS 2000

At last, Windows 2000 is essentially finished. It accomplishes what Microsoft Corp. hoped: making the company a contender to handle large Web sites and tough corporate computing tasks. But the path the software giant took is akin to Chairman Mao's Long March. Chairman Bill's huge project required an army of true believers. It took an extraordinarily long time. And there were casualties along the way.

The low point came just over a year ago. In December, 1998, nearly three years into the project, with a massive 30 million lines of code completed, Microsoft engineers were still finding more bugs in the software each day than they were able to fix. And just when the mood was darkest, Moshe T. Dunie, head of the core engineering team, left on an unscheduled sabbatical. Colleagues say he was simply worn out.

MORALE. His replacement helped pull Microsoft's chestnuts out of the fire. Brian Valentine, a 40-year-old senior vice-president, rallied the 3,000-strong engineering team by axing plans to add features and setting a hard deadline for the crucial third test version. Last Apr. 21 was the target—and that's the day it shipped. To mark the occasion, Valentine signed his name on a wall in the cafeteria of Microsoft's Building 26, and more than 1,000 engineers rushed to follow suit. "Hitting that deadline was a great morale booster," says Ramesh Parameswaran, a former Windows 2000 team member who has since left Microsoft.

That's just one of many ways Valentine has proved himself a world-class motivator. His technique: a combo of firmness and fun. He once swam across a campus pond dressed in a woman's bathing suit on a dare. And he did standup comedy routines to kick off the staff meetings he held each Friday afternoon. At the same time, he's no-nonsense when it comes to meeting expectations. Screw up, and you hear about it. "He's a cross between George C. Scott in *Patton* and John Belushi in *Animal House*," says Iain McDonald, a top lieutenant, along with testing director Sanjay Jejurikar.



VALENTINE (LEFT), McDONALD, AND JEJURIKAR LED A SOFTWARE ARMY OF 3,000 TRUE BELIEVERS

To bring Windows 2000 to the finish line, Valentine beefed up a project that was under way and brought 100 customers into the development process. Companies such as Texaco and Prudential Insurance tried test software on their computing systems. They even got to vote on when it should hit the market.

Microsoft made sure these key customers were content. When barnesandnoble.com ran into a glitch, Microsoft engineering teams scattered around the world had a fix ready by the time the online bookseller's chief information officer, Gary King, arrived for work the next morning. "The sun never sets on Microsoft," quips King.

The project finally came to an end for Microsoft's engineers on Dec. 13, when the last corporate partners signed off. The company shipped it off to manufacturing the following day. Valentine was relieved—and proud. "It took us a while to get here. But that was because we wouldn't compromise," he says.

It was time to celebrate. On Wednesday, Dec. 15, the product development crew staged a beer blast in a cavernous company parking garage. Valentine handed out snazzy Windows 2000 jackets. And Gates predicted that Windows 2000 would change the way computing is done.

That may be. But in the meantime, there's no rest for Microsoft's weary software coders. After a couple of weeks off, most of the engineers were back in the office again in early January, pecking away at their computers on the next versions of Windows.

By Steve Hamm in New York

RO WRESTLING

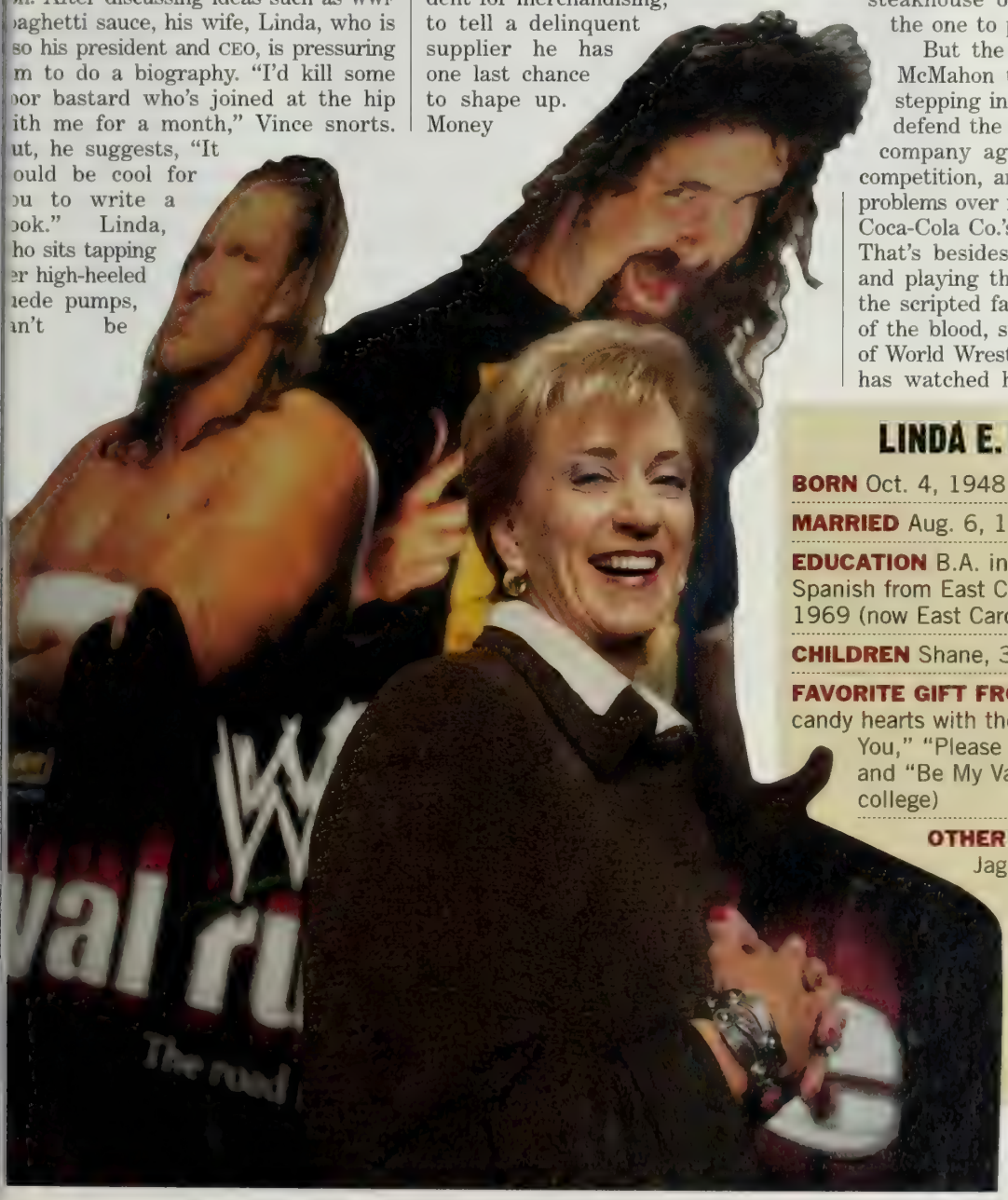
BLOOD, SWEAT, AND A LADY NAMED LINDA

Meet the polite power behind racy World Wrestling

There's a stone-cold chill at the headquarters of the World Wrestling Federation, and it's coming from Chairman Vince McMahon. After discussing ideas such as WWF spaghetti sauce, his wife, Linda, who is also his president and CEO, is pressuring him to do a biography. "I'd kill some poor bastard who's joined at the hip with me for a month," Vince snorts. But, he suggests, "It would be cool for you to write a book." Linda, who sits tapping her high-heeled stiletto pumps, can't be budged. "You're the face that sells," she insists until he finally agrees to talk to an agent. Minutes later, she's instructing Cynthia Money, her senior vice-president for merchandising, to tell a delinquent supplier he has one last chance to shape up. Money mentions a wrestler who's throwing temper tantrums because his T-shirts aren't sold at live events. "His character has to evolve first," Linda says firmly.

While her slick and highly toned husband may be the creative muscle behind the WWF—not to mention the Evil Boss who wields baseball bats during performances—it's Linda, 51, who quietly runs the day-to-day operation. For much of the past three decades, she has helped balance the books, do the deals, and handle the details that go into building a sports entertainment empire. "Vince is the type to walk in and say he wants an office in Nairobi by Monday," says Dusty Anderson, a longtime friend and Raleigh (N.C.) steakhouse owner. "Linda would be the one to put it together."

But the self-effacing half of the McMahon tag team is increasingly stepping into the ring. Linda has to defend the newly public multimedia company against lawsuits, growing competition, and the rising number of problems over its racy content, including Coca-Cola Co.'s decision to pull its ads. That's besides dealing with investors and playing the role of peacemaker in the scripted family feuds that are part of the blood, sweat, and muscle drama of World Wrestling. For McMahon, who has watched her 54-year-old husband



LINDA E. McMAHON

BORN Oct. 4, 1948, in Havelock, N.C.

MARRIED Aug. 6, 1966

EDUCATION B.A. in French, minor in Spanish from East Carolina State College, 1969 (now East Carolina University)

CHILDREN Shane, 30; Stephanie, 23

FAVORITE GIFT FROM VINCE Three candy hearts with the messages "I Love You," "Please Be My Sweetheart," and "Be My Valentine" (while in college)

OTHER GIFTS FROM VINCE Jaguar, black Aston Martin convertible

FAVORITE INDULGENCE Cool shoes

ROLE MODEL Mother, a budget analyst at a Marine Corps facility

PLAYER: *In wrestling dramas, McMahon's role is peacemaker*

smack aside near-bankruptcy, ridicule, and even federal criminal charges involving steroids a few years ago, the latest assaults just go with the territory.

Besides, there's not a lot of time for navel-gazing when you're managing a business that's extending its franchise to everything from snack food to a huge entertainment complex set to open in New York's Times Square in mid-January. The WWF's potent mix of shaved, pierced, and pumped-up muscle freaks; buxom, scantily clad, and sometimes cosmetically enhanced beauties; and body-bashing clashes of good vs. evil has spawned an empire that claims 35 million fans—mostly males between 12 and 34. That's the sort of demographic that makes advertisers and rivals drool. And these guys apparently can't get enough WWF tickets, broadcasts, books, CDs, games, and other merchandise. In the fiscal year ended last April, revenues topped $250 million, and analysts estimate that they'll reach $340 million for 2000. Meanwhile, an Oct. 19 public offering catapulted the McMahons to another level of wealth with an 83% share of stock that's worth about $867 million.

IMMERSION. Seated just behind her husband at the helm of this raucous ship is the poised and polite Linda McMahon. She met Vince in a small North Carolina church at the age of 13 when he showed up because his mother said there was a pretty blonde singing in the choir. Since marrying him five years later, McMahon has found herself caught up in the world of professional wrestling. A straight-A student who dreamed of becoming a pediatrician, she concedes that she never wanted to watch men throw each other around a ring. "I've come to appreciate it," she laughs between bites of a late lunch of steak and sweet potato in her pink-hued office at WWF headquarters in Stamford, Conn. In contrast, her husband is a third-generation wrestling entrepreneur who fought to turn a schlocky "sport" into mass entertainment with soap-opera scripts and enough cheeseball villains and heroes to make fans scream—and reach for their wallets.

WHAT MAKES THE MARRIAGE WORK

Linda says: "I'm an old-fashioned girl at heart. I make breakfast for Vince every morning he's here. He's a real bacon-and-eggs guy."
Vince says: "Her undying love and affection as a wife and as a mother, and great sex."

McMahon's first forays into the business of wrestling began soon after she gave birth to son Shane in 1970. While her husband did on-air commentary, developed scripts, and otherwise promoted Capitol Wrestling Corp., then owned by his father, Vincent, Linda started handling details like scheduling. By the time daughter Stephanie was born seven years later, Linda was totally immersed in the biz. Vince, a self-described juvenile delinquent who went to military school as a teenager to avoid a reformatory stint, says he resisted the idea of having his wife involved. "From a male chauvinist standpoint, I thought she would be better taking care of the kids and taking care of me," he says. Linda still cooks Vince breakfast most mornings before they work out in their private gym, but her days of tending the hearth are long behind her. By 1982, when Vince bought the company and renamed it Titan Sports Inc., Linda was helping her man to manage as he branched into pay-per-view events, a TV series, and products such as action figures.

WALL STREET WORRIES. As the WWF began to take shape, however, a long shadow fell across it. In the late 1980s, media mogul Ted Turner bought World Championship Wrestling and soon drew the bulk of McMahon's talent to his TNT Network (page 164). In the midst of the battle with Turner McMahon faced an even more dangerous foe: A federal grand jury indicted him in 1993 for conspiring to supply steroids to wrestlers. McMahon was acquitted but says the two-year court battle was the low point in the couple's life.

Then there are the recent controversies that have dragged WWF stock below its 17 initial offering price. Topping the list is Coke's decision to pull ads from *WWF Smackdown!*, which airs on UPN, because of violence and lewd content. Add to that the defection of some top writers to WCW and several lawsuits, including one filed by the family of wrestler Owen Hart, who died during a stunt at a pay-per-view event last May.

So guess who's quelling investor fears. It helps that Linda has analysts on her side who say the stock will be worth at least 30—once buyers realize that the WWF is such a potent brand. (It closed at 15¾ on Jan. 10.) "The average Wall Street investor is not exactly the demo here," says Laura Martin of Credit Suisse First Boston.

Whatever worries Wall Street may have are clearly not shared by the fans. Advertising and sponsorship sales increased to $30.1 million last year, a 147% jump over 1998; a CD featuring the theme songs of WWF stars rose to No. 2 on the music charts last year; and a biography by wrestler Mankind (a.k.a.

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Mick Foley) topped *The New York Times* best-seller list. The company gets one-third of its revenues from merchandise, dealing with 85 licensees who make everything from WWF apparel and greeting cards to toys and video games. In 18 months, its Web site has catapulted to the top 100, generating more than 157 million page views per month.

And the McMahons say they're just beginning their tear. "Eventually, with all the media convergence, we will be programming 24 hours a day," says Linda. Next up: an action-adventure series that she calls "a *Miami Vice* kind of thing" and a late-night talk show featuring WWF talent, which may be broadcast from the about-to-open Times Square complex. Projects in Australia, Britain, France, and Japan this year will extend the franchise overseas.

One of Linda's greatest pleasures is seeing her kids in the business. Shane handles new media. Stephanie works in ad sales. While Shane acknowledges his father's role in creating the WWF, he says: "Mom is much more detail-oriented, making plans and setting deadlines. She's the glue of the organization." Both kids have become regular TV characters—Stephanie, 23, recently "married" her dad's archrival, launched a coup, and is the new big boss. Linda makes an occasional appearance as the soothing voice of reason. Vince thinks his kids are "great hams" but says that "Linda is more comfortable behind a desk." So why push her into the act? Because Vince wants her in. After all, he's still the boss. "She understands that my decisions are well thought out," says Vince, who calls the WWF his mistress. "Somebody has to have the final word, and that's me."

Given the sheer breadth of tasks Lin da now has to perform, Vince is pon dering whether to bring in someone els as president to handle more of the op erational details and let her concentrat on the broader public task of being CE She agrees that "there are a lot of ta ented people who could do my functio although they wouldn't bring the sam kind of passion or understanding o where this grew from." But most sa losing her services altogether would b a big loss to the WWF. Marina Jacob son of Bear, Stearns & Co. calls her "ex tremely smart and a very quick study who has convinced investors that WW leadership is very professional. That right, professional. And anyone who got a problem with that should go tal to Vince.

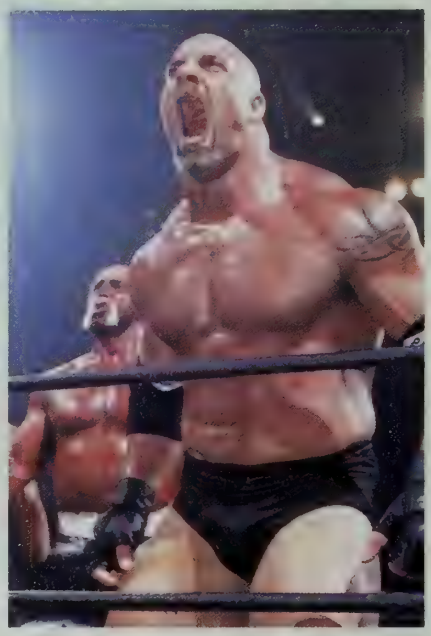
By Diane Brady in Stamford, Con

WRESTLING'S REAL GRUDGE MATCH

When trim Ted Turner decided to take on pillar-necked Vince McMahon, there was no question who had the cash and who had the muscle. In the mid-1980s, the Atlanta media tycoon had lured McMahon's World Wrestling Federation to his TBS network. Then things turned nasty—and personal. Turner didn't deliver what he promised, and the pair split, says McMahon. Turner, who was unavailable for comment, bought the second-tier World Championship Wrestling in late 1988 and spent millions signing up WWF stars like Hulk Hogan and Macho Man Randy Savage. He launched *WCW Monday Nitro Live on TNT* seven years later, pitted it against the WWF's *Raw is War,* and by '96 was watching his rival's ratings dive.

Yet just when it looked as though the WWF had been slapped down but good, it fought back to the top with a pumped-up script, mouthy musclemen, and lycra-clad women. "Ted Turner decided to come after me and all of my talent, and now he's where he should be in his...life," growls McMahon, gloating over Turner's separation from Jane Fonda.

But the WCW has plenty of fight left in it. In October, it hired WWF scriptwriters Vince Russo and Ed Ferrera to spice up its format and just trimmed an hour off its Monday show. "We're working hard to create more compelling action that builds stronger characters," says WCW general manager Bill Busch. It, too, has expanded its merchandising reach, and will launch an interactive system in February that lets viewers order merchandise using their TV remote. The WCW, a Turner Broadcasting System Inc. subsidiary, is releasing its first feature film, called *Ready to Rumble,* in the spring. And Coke, which pulled commercials from the WWF, has stuck with the WCW.



GOLDBERG (FRONT) AND HULK HOGAN: *More mainstream?*

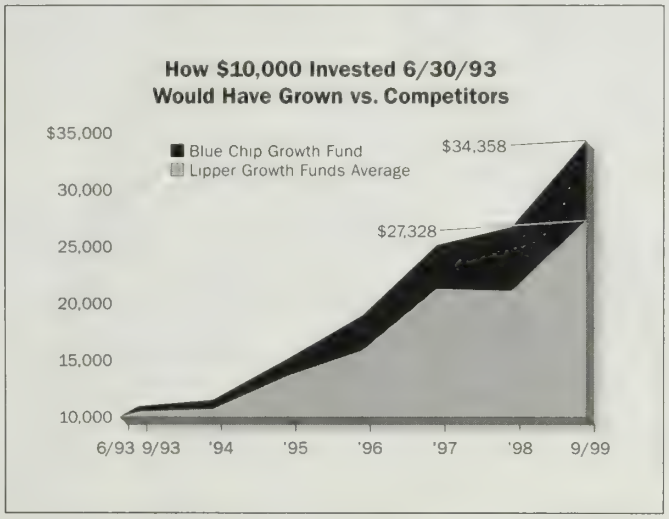
McMahon, meanwhile, crows that the WWF is still champ and dismisses Turner's crowd as copycats. The dueling duo are locked in lawsuits over the WCW's alleged copyright infringement and the WWF's portrayal of "Billionaire Ted" as a corrupt tyrant on its show. "They pay people to sit there and watch what Vince does.," sniffs Jerry S. McDevitt, a partner at the Pittsburgh law firm of Kirkpatrick & Lockhart LLP, which represents the WWF.

Does McMahon now have Turner in a stranglehold? "I think the WWF has a much more focused product," says analyst Laura Martin of Credit Suisse First Boston. Martin says that the WCW attracts an older, mainstream audience that doesn't generate as much buzz with advertisers.

"It's all old guys who have retired from the WWF," says Alexis Ramdaou, 15, a Brooklyn (N.Y.) high school student with "The Rock," a WWF wrestler, painted on her face. On a frigid January night, she has been standing outside a Manhattan bookstore for 11 hours to get the wrestling star to sign a copy of his book. And what about Vince McMahon? "He's so evil and so cool," another teenager shouts. O.K., Ted, who's Captain Outrageous now?

By Diane Brady

A clever headline is no substitute for actual long-term performance.



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BIOLOGY

JOINED AT THE GENES?

Zebra fish may help explain the keys to human diseases

It's always summertime on the third floor of E-17, an otherwise unremarkable brick building at Massachusetts Institute of Technology. That's because it houses the "Fish Ritz," a series of 4,000 interconnected tanks that harbor over 100,000 minnow-size, black-striped zebra fish. A team of 8 assistants supervises feedings and checks the water quality and filtration systems. The chatelaine of this establishment, biology professor Nancy H. Hopkins, takes no chances with her animals. She believes these silvery fish will someday help explain the fundamentals of life and human disease. And she is not alone.

A growing number of scientists are championing the potential of the zebra fish. As an experimental animal, it has several important advantages over the lab mouse or rat—not to mention notoriously fussy human subjects. Zebra fish make it possible to do many experiments much faster and far cheaper than if they were done with mice. Already, researchers at Harvard University, the University of California at San Francisco, and the University of Oregon have created mutant fish that mimic various human diseases, including hardening of the arteries, leukemia, and spina bifida. In 1997, the National Institutes of Health launched a major research initiative to use fish to understand brain degeneration and even alcohol addiction.

NOVEL TARGETS. Biotechnology companies are also beginning to invest. Amgen Inc., based in Thousand Oaks, Calif., is funding 60% of Hopkins' research in exchange for the exclusive rights to her discoveries. Meanwhile, Genentech Inc. in South San Francisco, Calif., and Ontogeny Inc. in Cambridge, Mass., are using the animal to hunt for novel drug targets that could be developed to treat Parkinson's disease, diabetes, or cancer. "The possibilities are endless," says John Shih, a senior scientist at Ontogeny.

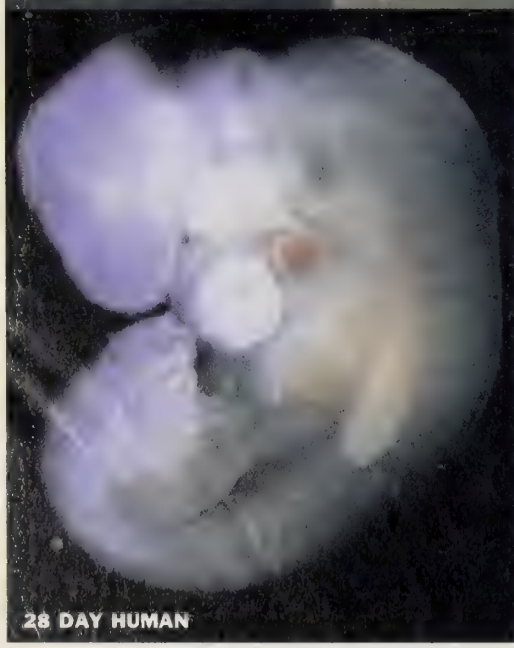
In the past two decades, biologists have learned that many of the same genes control cell function in animals a different as insects, mice, and human The lowly fruit fly has become an in portant experimental animal, but it pr vides only so much information: It useful for genetics studies, but it doesn form internal organs like those of mouse or a human. Mice can be eng neered to be defective in genes involve in cancer or cell growth. But in order t identify all the genes involved in the fo mation of, say, the liver, a scientist woul need to generate and analyze thousand of mutant mice, and that would tak years. It would also be technically diff cult—it is impossible to watch the live in a baby mouse develop, since the fetu is hidden deep inside its mother's wom

Enter the zebra fish. As with hu mans, it uses a heart to pump its bloo nerves to sense its environment, an eyes to see with. The similarities ex tend beyond body parts to the ver genes themselves. The zebra fish's sho development time—it reaches adulthoo in just three months—and its ability t produce hundreds of offspring in on mating allow scientists to do better re search—and do it faster. The zebra fis which costs only about 60¢ at the loc pet store, is also cheaper than th mouse. Best of all, because the embry develops outside the mother's body an is transparent, scientists can watch th animal develop in real time. "After tw days, you can see the different region of the brain and the blood circulatin through the heart. It's really quit amazing," says Hopkins.

Despite these advantages, critic

THEY'RE FAMILY

Humans and zebra fish evolved from a common ancestor 420 million years ago. At the earliest stages of their development it is hard to tell them apart. Here are some striking similarities:



28 DAY HUMAN

- Fish and humans use the exact same genes to turn a glob of cells into recognizable shapes with tops and bottoms and fronts and backs.
- Roughly a third of the time, the way genes are arranged on the chromosome is the same in fish and humans.
- Mutations in the same genes that cause anemias in humans also cause anemias in fish.
- The zebra fish heart at two days is identical to the human heart 3 weeks after conception.

19 HR. ZEBRA FISH

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questioned whether fish were similar enough to humans to serve as good models of disease. Even if such mutants could be produced, doubters protested that the task of finding the genes responsible would be so onerous that the research would proceed very slowly. Reflecting on the early 1990s, when she started her zebra-fish laboratory, Hopkins says: "People thought I would be out of science in three years."

HOPKINS: *People were so skeptical of her fish research that they "thought I would be out of science in three years"*

But discovery by discovery, she and other zebra-fish disciples are proving the critics wrong. In the first large-scale hunt for fish disease genes, scientists from Harvard Medical School and the Max Planck Institute in Germany identified mutations related to almost every aspect of development. Dr. Mark C. Fishman, the Harvard cardiologist who helped lead the fishing expedition, recalls finding animals with pigmentation defects, even missing internal organs. He also uncovered dozens that made defective hearts. "We found mutations that affected just the heart valves, caused arrhythmias, or prevented the heart from beating," says Fishman. According to Fishman, the genes responsible for these defects could be very important clinically. "Congenital heart disease is very complex. Good candidate human genes still need to be identified, and it looks like we can use the zebra fish to find them," he says.

In the meantime, scientists at Genentech and Ontogeny say it's clear the animal will be a useful tool in their efforts to find novel, innovative drugs. Ontogeny's Shih says they have identified 100 exciting new leads in their quest to develop diabetes drugs. For the last three years, Arnon Rosenthal, a senior scientist at Genentech, has been using the fish to find new treatments for Parkinson's disease and anxiety. Because fish have a stereotypical response to predators—they dart away at the first sign of danger—Rosenthal says the fish are ideal for identifying new compounds that could help wit anxiety, depression, or addi tion. For instance, the r searchers could set up a sit ation to elicit fear in the fis and look for mutants th failed to respond. By unde standing the nature of th mutants' genes, scientist might be able to develop ne psychiatric drugs.

A LOT MORE. The first practic payoffs of zebra fish researc are still years away. One of th major bottlenecks is that fin ing a precise gene defect cau ing a particular mutation ca take more than a year. "W need to come up with a faste procedure. Then, work in zebra fish wi explode," predicts Rosenthal.

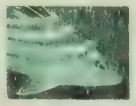
MIT's Hopkins is at the forefront this endeavor. So far, her lab has clone 25 genes in a little over a year, most i the last two months. At least two loo to be important for the study of huma disease. The group is likely to hit a lo more before they finish. Hopkins' pe sonal goal in the next two years is t identify at least 1,000 of the 2,500 or s genes required to build the fish. B automating the process, she predict she'll be able to identify a new geneti mistake in a matter of days.

Researchers say there is an eve more pressing need to develop this kin of technology. By 2003, the entire hu man genome, whic contains more tha 100,000 genes, will b sequenced. "The func tions of most of thes genes will be a mys tery," says Doros Plat ka, the chief executiv officer of Ontogeny But as more zebra fis genes are discovere and new tools are de veloped, scientists pre dict they will be abl to use the fish to mak sense of the billions o bits of information con tained in the huma genome. It's simple says Hopkins: "Onc we really understan how to make a goo heart or a good live [in a fish], then mayb we'll know how t grow a new one in human."

By Ellen Licking i Cambridge, Mass.

THE LAB MENAGERIE

Humans are notoriously unwilling to allow themselves to be crossbred or dissected—even for the loftiest scientific aims. So researchers use various experimental animals, which have more in common with humans than it might seem. These include the fruit fly, the roundworm, the mouse, and now, the zebra fish.

ANIMAL	ADVANTAGE	DISADVANTAGE
FRUIT FLY	Develop in only 24 hours, so scientists can generate and study many mutants in a short period of time.	Major organs, including the heart and the circulatory system, are dramatically different from those of their human counterparts.
ROUNDWORM	Scientists can follow individual cells as the worm forms, leading to new insights about the fate of cells.	Does not share many organs with humans.
MOUSE	Physiologically similar to humans. Much is known about making and studying mouse mutants.	Because the embryos develop inside the mother, it is difficult to study the earliest stages of development, such as organ formation. Mice are expensive to maintain.
 **ZEBRA FISH**	Cheap to maintain, breed rapidly, and have organs similar to those of humans.	Scientists are still learning to manipulate its genes. Some aspects of development and disease are different in fish and humans.

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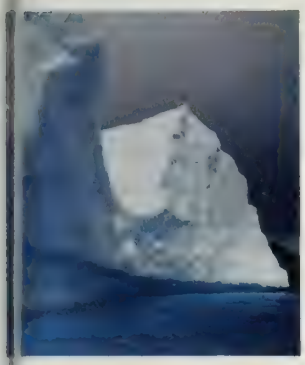


KING E TEMPERATURE THINGS PAST

SEARCHERS STUDYING earth's climate history e found a new "ther-meter" in microscopic fos- on the ocean floor. It will p show changes during the t 50 million years in two cial indicators: the world-le total volume of ice, and nperatures at the bottom the oceans.

The more ice on the sur-e of the earth, the more the sun's energy is reflect- And deep-water tempera-es affect many chemical l biological processes in sea. Measuring the nges down through time crucial for understanding current bout of global rming that could, in the rst-case scenario, alter the mate dramatically, flood astal cities, and disrupt riculture.

In the Jan. 14 issue of *ience*, British researchers University of Cambridge ow that the amount of gnesium that is incorpo-ed into the fossils is relat- to temperature. "If this w 'paleothermometer' rks, we can study in de-l some of the rapid shifts climate and better under-nd the mechanisms," says ry S. Dwyer, a Duke Uni-rsity geologist who wrote a mmentary accompanying e study. Researchers are w working to confirm the dings. *Paul Raeburn*

A TINY ELECTRICAL CHARGE TO RELIEVE DEPRESSION

A NATIONWIDE CLINICAL trial has shown that people who suffer from severe depression—about 1 million in America alone—could benefit from a therapy called vagus nerve stimulation (VNS), which up until now has been used to combat epilepsy.

Patients selected for this three-month trial all had histories of depression, and all had failed to respond to other treatments. In the test, which was coordinated through the psychiatry department at the University of Texas Southwestern Medical Center in Dallas, 40% of the patients who were treated with VNS showed some improvement. Several of them improved so much that they were able to return to work. "For the first time in years, I can feel joy, real joy," says Joanne Tesoriero, a Texas grandmother who participated in the study.

The technique uses minuscule electrical impulses to stimulate the vagus nerve, located in the neck. A pulse generator in the chest delivers the charges in individual "doses" through a small, surgically implanted wire. The 30-patient pilot study was conducted at five medical centers across the country. The Food & Drug Administration has approved an expanded 94-patient trial of VNS at up to 15 medical centers beginning next year. Houston's Cyberonics Inc., which developed the VNS treatment and devices and helped fund the research, says the study may ultimately involve 200 patients at up to 20 medical centers nationwide.

Stephanie Anderson Forest

A BRIDGE TOWARD THE RIGHT CHEMISTRY

THE 21ST CENTURY IS STARTING OFF WITH A BANG FOR THE world of materials science. Researchers at the University of Toronto have bridged the gulf between organic and inorganic chemistry—opening the door to new materials and composites with unprecedented properties.

It's almost as if scientists have rediscovered silicon and plastics. Now, instead of being separate technologies, these two giants of organic and inorganic chemistry are mutually reinforcing—they can be combined within the same crystalline structure. "This gives organic chemists a whole new world to work with," says Geoffrey A. Ozin, the professor leading the research program. "And solid-state scientists can now incorporate organic components to improve what they do." For example, organic polymers could include inorganic elements that yield breakthrough combinations of strength, flexibility, and weight. And silicon—the basic material of semiconductors—could acquire new properties, chemically tailored from inside.

As reported in the Dec. 23 issue of *Nature*, the key is dissolving silicon dioxide in the presence of an organic compound and causing the silicon to rearrange its physical structure to mimic that of the organic material. This enables it to incorporate some organic molecules. The result is a novel hybrid material with the electrical properties of silicon, but now modified by the inclusion of organic elements. Ozin is excited with the early results. "I'm quite happy to put the rest of my years until retirement into this," he says. *Otis Port*

INNOVATIONS

■ Roller-coaster thrills may carry hair-raising risks. In a case reported in the Jan. 11 issue of *Neurology*, the journal of the American Academy of Neurology, a 24-year-old Japanese woman developed blood clots on the surface of her brain after repeated rides on fast coasters at a Japanese amusement park. Researchers note that this sometimes deadly condition, which is rare in young women, was also observed in three other roller-coaster buffs.

■ In 1998, researchers at Lucent Technologies' Bell Labs proposed that engineers could use the way that radio signals bounce around among city buildings to create a medium that would boost the bandwidth available to various wireless devices. Crowded airwaves would become a boon, instead of a liability. But to take full advantage of the effect, engineers would need detailed models of crowded cities. Now, Bell's own theoretical physicists are helping to solve the problem. They've found a model for crowded airwaves in the way electron waves move through metals laced with contaminants. "The propagation of the electrons could give you an idea of how to position the antennas," says Aris L. Moustakas, who describes the results in the Jan. 14 *Science*.

BROADBAND SERVICES, BUYING WINE ONLINE

BusinessWeek Lifestyle

Cruising the Net–In Hyperdrive

There are lots of high-speed services. Which is right for you?

BY KATE MURPHY

Tim Higgins has the bandwidth blues. When he lived in Boston, the 48-year-old computer networking consultant connected to the Internet via a cable modem. But since moving to Nellysford, Va., last September, he's had to hook up via a markedly slower phone hookup—the only way to go online in his neck of the woods. "Once you get a taste of broadband," says Higgins, "it's really hard to go back."

Serious surfers know the broader the bandwidth, the better. Although high-speed Net access is currently limited largely to urban areas, an estimated 31% of the country's online households already have cable, digital subscriber line (DSL), or wireless services. But cable and telecom providers companies are scrambling to widen their markets (page 177), so many more consumers will soon be able to enjoy the benefits of a high-speed home where the Net is always on and available. Using a DSL hookup, for example, we downloaded IBM's annual report in three seconds, vs. nearly a minute via analog phone modem. But the array of broadband choices is confusing, to say the least, and each technology has drawbacks along with benefits. Whatever service you choose, be prepared for aggravation, including feckless installation crews, technical glitches, and clueless operators manning help lines. "All these companies are rushing to make high-speed access available without adequately ramping up support," says Eric McIntyre, who, as manager of Web site Cablemodeminfo.com, is a conduit for gripes from disgruntled cable, DSL, and satellite users. For many consumers, however, the hassles are worth it. Before you make your choice of service, here's what you need to know.

SHARED PLATFORM. With more than 1 million subscribers, cable has an early lead in providing high-speed Internet access. Cable delivers the Web at speeds up to 18 times faster than through a standard 56k dial-up connection—about the same speed as the T1 lines found at many corporations. Cable service costs anywhere from $30 to $60 per month for unlimited access, and while you don't have to be a cable-TV subscriber to receive Net service, you may be able to get a discount if you are. You can also knock about $10 off your monthly charge if you buy your cable modem from Circuit City or another major electronics retailer, rather than renting one from the cable company.

The Internet

But all is not sweetness and speed. Cable is a "shared platform," which means you and your neighbors are sending and receiving data on the same pathway. During peak hours—5 p.m. to 11 p.m. in residential areas—traffic jams can sometimes slow your service to dial-up speeds.

Night is noticeably slower," recalls Higgins.) be aware of security concerns. On cable, 're on a network you share with others, much vou might have at work. That makes you eptible to hackers. One way to limit possible nage is to make sure you turn off any of your nputer's file-sharing features. You might also estigate installing a firewall program to pro- your computer. "If you don't, you're leaving rself wide open," says Jerry Jones, Web-site nager for Disney Resort Parks Sales & Ser- in Orlando. He installed Winproxy ($59.95) r getting cable service.

EDY ACCESS. Cable companies also force to use their own Internet service providers, h less compelling content than, say, America ine. For example, Comcast sticks you with cite@Home. On Time Warner's system, Road- ner is your only option—although Time rner's planned merger with AOL could change t. AT&T recently announced it would give scribers to its TCI cable service a choice of viders after its exclusive contract with Ex- e@Home expires in 2002. And you can al- ys subscribe to AOL.

Even though cable is the current leader in h-speed residential access, DSL is gaining as regional Bell companies and a number of in- endent providers race to make the service ilable to everyone in their calling areas. DSL uses your home's existing telephone wiring but different switching and signaling equipment to speed data down the line. It also allows you to be online while you're talking on the phone. The most common and cost-effective type of DSL service is called asynchronous DSL, or ADSL. In asynchronous service, data travel at different rates to and fro. Download speeds average six times faster than dial-up modems, and upload is about three times as fast. Like a cable connection, DSL is always on. The service costs $30 to $50 a month—higher fees get you more bandwidth and faster speeds. Installation runs $100 to $200, plus another $100 to $300 for a modem supplied by the phone company.

While DSL is slower than cable's top rate, it's consistent. Since it's a dedicated line, you don't have to worry about heavy traffic slowing you down, and as you're not sharing a network with your neighbors, you're less likely to get hacked. You have a broader selection of ISPs than with cable, but the number is limited to those that have a contract with your local phone company. You can also subscribe to DSL via alternative

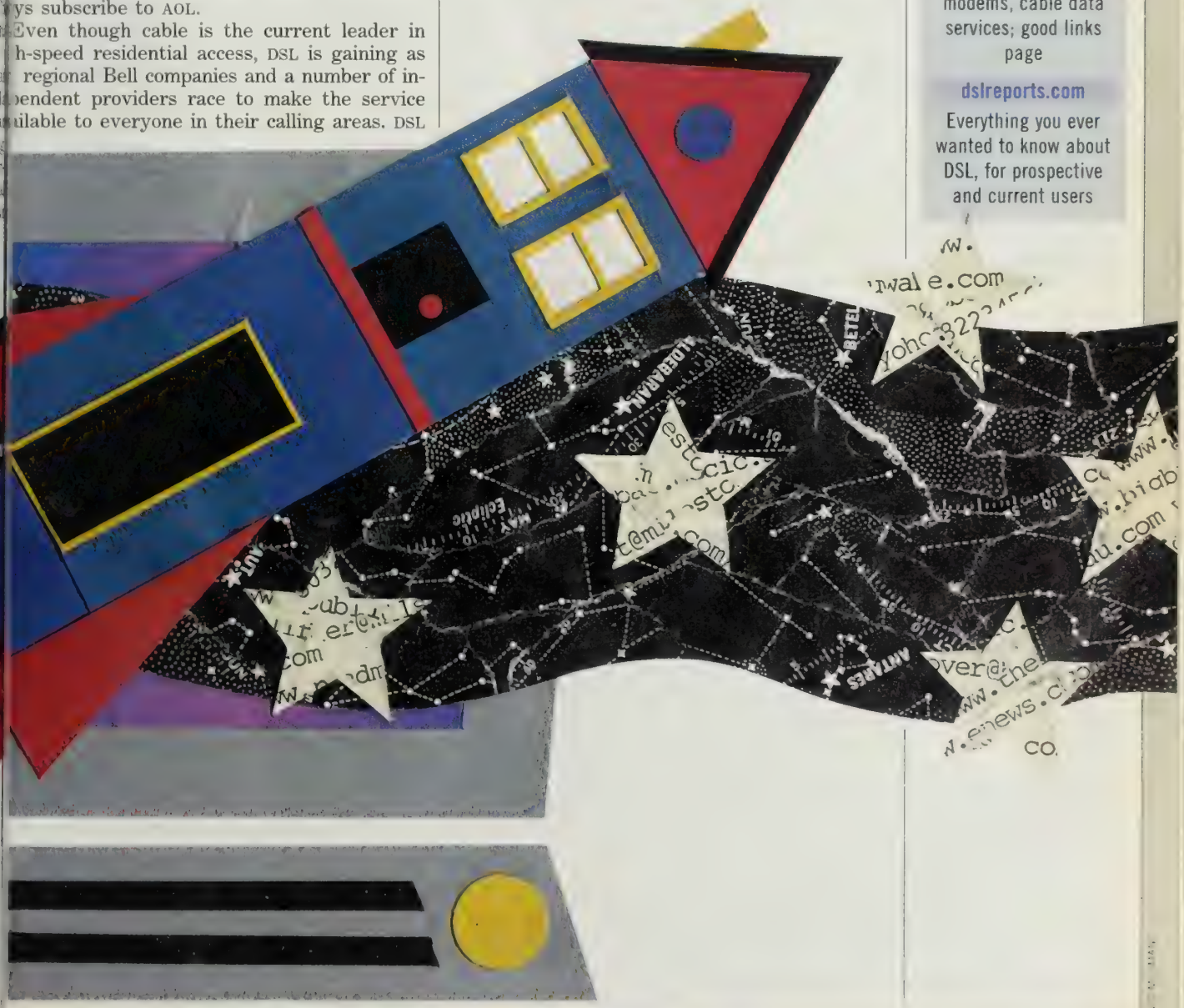
Broadband Info

getspeed.com
Gives providers and prices of high speed Internet access in your area

speedguide.net
Information about the relative merits of DSL and cable; tips for getting the most out your service

cablemodeminfo.com
Wide variety of information about cable modems, cable data services; good links page

dslreports.com
Everything you ever wanted to know about DSL, for prospective and current users



providers including Covad Communications or NorthPoint Communications. One company, Broadband Digital Group of Newport Beach, Calif., even plans to provide free DSL service, although you'll have to put up with ads on your screen. Alternative providers offer a wider variety of ISPs, but you'll have to add an extra phone line. That will probably change, thanks to a recent Federal Communications Commission ruling that will force local phone companies to open customers' voice lines to other DSL carriers. The opening could come within six months, although appeals could cause a delay.

LOOK TO THE STARS. Like cable, DSL is now only available in major metropolitan areas. Access in those areas is further limited to people who live within 17,500 feet of a phone company central switching office because the digital signal—as well as access speed and reliability—degrades with distance. Mike Dimitroff, a digital telephony developer for Lucent Technologies, is lucky enough to live just two blocks from his local phone company's central office in Plano, Tex. Unlike subscribers who live farther away, he says, "my DSL connection is faster, and I haven't had any technical problems." That good fortune will soon be shared by others, though. Local phone companies are building thousands of remote switching facilities to enhance service throughout their regions.

For an alternative to cables or phone lines, look to the stars—or at least to the nearest radio tower. You'll need a satellite dish about the size of a hubcap affixed to your roof. The cost of the equipment, which you can get from providers such as InfoDish (infodish.com) or PC Connection (pcconnection.com), is about $190. Installation is $100 to $250, with monthly fees, including ISP charges, ranging from $30 to $130, depending on how much time you spend online. Satellite data streams are about seven times as fast as those over a dial-up modem. But that's just for incoming data. You're back to 56 kilobits p second when sending data because you ha to use a phone line for your uplink. That why Jones switched from satellite as soon cable became available in his area. "Satelli is better than dial-up alone, but definite not the way to go if you've got a choice he says. Market leader Hughes Electro ics says its DirectPC system will be al to send as well as receive data in tw years. However, a handful of startups, li Tachyon in San Diego, plan to provide tw way satellite service to businesses as so as this year.

A different wireless Web technology reli on radio waves transmitted to and from t towers that handle cellular phone cal Teligent and Winstar Communications provi local multipoint distribution service (LMDS) th uses frequencies in the 24 to 38 gigahertz ran to send data at speeds as high as 155 megabi per second. But your antenna must be within t line of sight of your provider's base station. Th makes LMDS best for urban areas, where ante nas can be placed atop tall buildings. Used p marily by businesses, these systems cost an where from $149 to $1,400 a month, dependi on speed.

More affordable for residential users are wir less applications that transmit data at a mu lower frequency—1.9 gigahertz. They're abo half as fast (512 kbps) as average LMDS, b they don't require an unobstructed view of cellular base station. You mount the antenna the outside wall of your house. AT&T is curren ly test-marketing such a service in three maj metropolitan areas and plans to offer it natio wide early next year, starting at $34.95 p month. However, it will only be available in a eas not served by AT&T's TCI cable operations.

Whether you want to tether yourself to t Net by cable or phone lines, or rely on rad waves to get you online, you're not likely to r gret jumping on the broadband bandwagon.

Speed Check

Does your fast Internet hookup suddenly seem sluggish?

▶ Go to Microsoft's www.computingcentral.com/topics/bandwidth/speedtest500.asp and get an instant reading on your computer's download and upload speeds. Or download NetStat Live for free from AnalogX at www.analogx.com/contents/download/network/nsl.htm. It sets up a nifty window on your desktop that gives you continuous speed measurements in graphic form.

Going Online

SERVICE	COST/MONTH*	MAX. SPEED**	PROS	CONS
CONVENTIONAL PHONE	$0-21.95	56 kbps	Cheap, available everywhere	Low speed, busy signals
CABLE MODEM	$30-60	1 Mbps	Fast, always on, most widely available broadband technology	Shared platform means slower service during peak online hours. Easier for hackers to infiltrate
DSL	$30-50	800 kbps	Dedicated line, consistently fast, higher security	You have to live near a phone company switching station
SATELLITE	$30-130	400 kbps	Fast, dependable, and wireless	Currently, high-speed is for receiving data only; uploads move at slower speed over phone lines. Not always on
MICROWAVE	$149-1,400	1.4 Mbps	Fast, dependable, wireless, always on	Some versions require unimpeded line of sight to a base station

*Plus installation, equipment purchases. **Download speed only.

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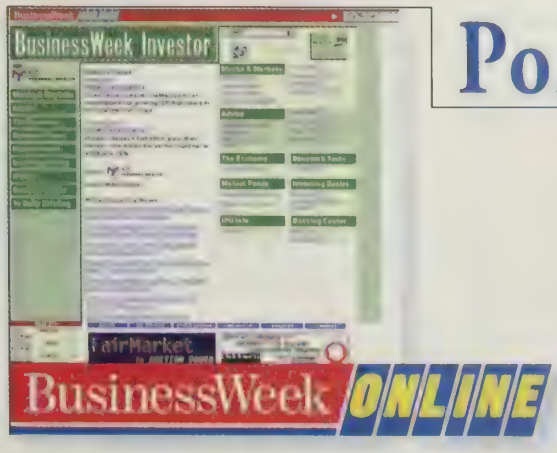

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So You Want to Bet On Broadband?

These stocks aren't cheap, and they can be volatile

CABLE'S NEW WAVE: *High-speed Internet access in your home*

BY SUSAN SCHERREIK

Web surfers fed up with pokey dial-up connections aren't the only fans of broadband, or high-speed Internet access. "The demand for broadband is one of the fastest-growing areas in telecommunications," says Oscar Castro, manager of the Montgomery Global Communications fund. "That means plenty of opportunities for investors." Adds Brian Stansky, who runs the T. Rowe Price Media & Telecommunications fund: "If you look at where the world is really going to change, this is it." Indeed, America Online's recently announced merger with cable and me giant Time Warner is a sign that "broadband becoming a more valuable financial asset," sa Bruce Kasrel of Forrester Research.

Today, an estimated 2 million U.S. hous holds rely on broadband to reach the Interne By the end of 2003, however, Forrester figur that 26 million homes will use broadband. B many broadband stocks are far from cheap, a they can be volatile. For instance, shares of J Uniphase, whose laser devices expand fiber-op networks and are key for broadband, slumped much as 20% during the tech stock sell-off in t first week of January. But they are still 1,005% over the past 12 months.

GROWING DATA WAVE. Which businesses a most likely to benefit as Internet speed re up? Kevin Landis, a manager at Firsthar Funds, is betting on high-tech outfits that a "building the broadband backbone." One of h top picks is Ciena, whose equipment helps e pand the capacity of fiber-optic networks so th can more swiftly carry the growing wave of I ternet data. Landis also high on PMC-Sier and Applied Micro Ci cuits, whose semicondu tors help power hig speed computing networks. Landis notes th the prices of all three stocks have rocketed du ing the two years since he purchased the "But the arguments for owning them are just valid today as back then," he adds, referring the Internet's thirst for more speed.

Another terrific broadband play is cable T particularly companies such as Cox Commun cations and Comcast, says T. Rowe Price's Sta sky. This year, Stansky says, cable compani will start more widely offering broadband v the TV set-top boxes. "You'll be able to watch movie on HBO, while your teenage daught talks to her friends on an Internet phone co nection and your son surfs the Web," he e plains. Stansky also favors PSINet, which is hel ing build broadband networks in foreig markets.

Companies that offer consumers broadbar services are also likely to win big as high-spe Internet connections replace dial-up modem In this category, Montgomery's Castro favo Excite@Home, the leading provider of cab broadband, with about 1 million subscriber Excite@Home shares, recently trading arou 39, are off 26% over the past year because ma investors are worried that the company's bus ness will falter when its exclusive contract wi AT&T's cable unit ends in 2002. But Castro b lieves Excite@Home's array of broadband ser ices will continue to draw new subscribers. H sees Excite@Home shares climbing to 65 with the next 12 months.

Investing in any one broadband business is gamble because no one knows yet which broa band technology will dominate. So spread yo bets, monitor your picks, and brace for spe bumps along the way.

Broadband Plays

COMPANY/SYMBOL	PRICE*	12-MONTH PRICE CHANGE	COMMENTS
CIENA/CIEN	$57¾	+273%	Its equipment lets fiber-optic networks carry more Internet data
COX/COX	45	+32	Will benefit from growing broadband access via cable set-top boxes
EXCITE@HOME/ATHM	38 15/16	–26	Leading cable broadband provider
PMC-SIERRA/PMCS	149¾	+319	Makes chips that help computing networks speed Internet traffic
PSINET/PSIX	61	+162	Building broadband on a global basis

*Jan. 7

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A Vintage Year For Wine Web Sites

Good buys galore and plenty of advice

BY THANE PETERSEN

A few months ago, Mark Goodrich was stumped as to what to give his future mother-in-law on her birthday. Then the 29-year-old senior analyst for Electronic Arts, a Redwood City, Calif., software and online entertainment company, recalled that she's a wine lover. He found the ideal present at Wine.com: a six-month membership in an online wine club. She has been bowled over by the two bottles a month she's been getting from California vineyar whose wines aren't av able in stores near h Philadelphia home. scored big point Goodrich crows.

Wine lovers have ca for rejoicing. In just t past few months, t handful of wine vend on the Internet has i proved markedly, and n sites have gott up and running. What t means—at least in the ry—is that more peo will have access to much wider selection th they would find at th local store or in the wine mail-order catal They also can shop their leisure seven days week and winnow the s lections using all sorts criteria—price, produc and so on. If you wa say, a California Mer for $15, you can quick get a host of choices. A sites such as the recent bulked-up Wine.com p vide much more inform tion than most catalogs salespeople can giv There's also the labor fa tor—your own. A case wine weighs 40 lbs, not Jay Essa, CEO WineBins.com. With a c berpurchase, "you do have to schlep it home he says.

I've been logging on, perusing sites, and o dering wine since before Thanksgiving, and I' found that the Web is an excellent way to g Everyone from local retailers to online gift sho such as Send.com are jumping into wine sale But the closest thing to a national Web wi merchant is Wine.com, the product of the r cent merger of Wine.com and pioneer Virt alVineyard.com and backed by $96 million fro such venture investors as Boston's Thomas Le Wine.com's crosstown San Francisco riva WineShopper.com, just added $46 million to i coffers from venture-capital firm Kleiner Perki Caufield & Byers, among others. Napa (Calif based Ambrosiawine.com has backing from B Hambrecht of Hambrecht & Quist fame; eVin yard.com of Portland, Ore., is trying to rai $30 million; and WineBins.com of Canton, Mas is in talks with financier Ronald Haft.

The intensifying competition should only mak the sites better, especially as the e-tailers pou the money they're raising into broader sele tions. Just before Thanksgiving, for instance,

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Web Wine Buys

Ambrosiawine.com J Wine 1997 Russian River Pinot Noir ($20). Rich red that goes well with pork, duck, and turkey.

eVineyard.com Trimbach 1993 Cuvée Frédéric-Emile Riesling ($31.99). A fruity Alsatian white that complements poultry, veal, and fish. Rated 88/100 by *Wine Spectator.*

Wine.com 1995 Château Les Ollieux ($13). Produced by a small family vineyard in the Languedoc region of southern France. A bargain-basement price for a red good enough to be aged up to 10 more years.

was griping about Wine.com's poor selection of French reds. No longer. In recent days, I was able to find everything from a 1989 Château Mouton Rothschild at $265 a bottle to a 1995 Château Les Ollieux for $13. "Our receiving dock is groaning," says Peter Granoff, Wine.com's main wine expert. The site's ultimate goal is to become a wine portal—the first place to go online for all wine lovers' needs, from $200 Leverpull corkscrews to serving suggestions.

LEGAL MAZE. It's about time for wine online. Web wine sales have lagged because complex liquor laws enacted after Prohibition make setting up a nationwide network a nightmare. In Texas, for instance, selling via the Net is legal in some counties, but is considered bootlegging in others that remain dry. Some sites try to skirt such difficulties by requiring buyers to attest that the shipment is legal and absolve the seller of responsibility if it isn't. I'd avoid them if they're outside your state because you could be liable if something is wrong. Wine.com, WineBins, WineShopper, and others are making sure their networks are legal by getting local licenses, setting up shop in some states, and cutting deals with local distributors and retailers. In Utah, Georgia, Kentucky, and a few other areas where it's illegal to receive out-of-state wine shipments, forget it. Beyond those states, just type in your address, and you'll be told if you can buy or not. But Wine.com says it can sell to 45 states representing 90% of the U. S. population. Rivals are gearing up to match its reach.

Sorting through the information on wine sites is no problem. Wine.com has a nifty charting system that rates each wine on such qualities dryness, sweetness, and intensity. EVineya WineBins, and Ambrosia give you ratings fr magazines such as *Wine Spectator* and *Wine thusiast*, as well as from their own tasters. Co bine that information with the wide selectio and these sites can be powerful tools for pick a bottle. The selections range from 500 wines Ambrosia to 2,000 at WineBins, probably biggest online inventory. Wines range from low as $7 up to $1,249 for a 1959 Château La Rothschild at eVineyard. There are also g packs and wine clubs. As for retur WineBins.com says it will refund your wine if bottles are bad or broken. The others just s that you should contact them immediately.

Meanwhile, competition is starting to allevi the big disadvantage of buying online: high sh ping costs. EVineyard offers free shipping for ders over $25, and even the upscale Ambro gives out free shipping to first-time Intern shoppers. The list price of online wines also probably come down, especially as some com nies get big enough to buy in bulk and prices, the way Amazon.com is doing in boo Larry Gerhard, eVineyard's CEO, promises match any other virtual vendors price. WineBins.com says it w match the best price you can find a where on any wine it sells, even s cials in local stores. Just call, write, or mail details to WineBins.

Plenty of deals already are on offer. Wh I placed an order on eVineyard, I w offered a bottle of Robert Monda Coastal Zinfandel, usually priced around $8, for 99¢. Sites also point bargains. For instance, a Wine.com no tion next to a $9.95 1997 Seavie Chardonnay from McLaren Vale in Au tralia says that it's very similar to a mu pricier Kendall Jackson Vintner's Reserve.

SLOW SHIPPING. I have a few caveats about ber wine shopping. Depending on where y live, the wine you order, and availability from cal distributors, your delivery may be delaye Michael Leavitt, president of Boston manag ment consultancy Windlass Corp., stopped u ing Wine.com and other West Coast services cause it took four weeks to get his orders. switched to nearby WineBins. If you live in near a big city, check out the site of a big wi retailer in your state, such as Zach (www.zachys.com) in suburban Scarsdale, N. Y

A final cautionary note: Many shoppers g excited by the variety on their screens and ord more expensive wines than usual. It's easy to g carried away when you start reading up on d licious sounding wines online, says Virginia Bloo of Freeland, Wash. In November, she ended buying a $50 1996 Amici Meritage, a blend red of which only 75 cases were produced, fro Ambrosiawine.com. "I'd never do that at t store," she says. Then again, she loves the har to-find wines she's been able to obtain for t first time, courtesy of the Web.

Online Wine Merchants

WEB SITE (WWW.)	DESCRIPTION
ambrosiawine.com	Napa (Calif.)-based niche player very strong on aged California cabernets. Offers 500 wines and ships to 17 states. Service-oriented and encourages phone counseling with its experts for those who can't decide.
evineyard.com	Portland (Ore.) retailer ships to 21 states. Selection comprises 1,800 wines. Provides *Wine Spectator* ratings as well as its own.
wine.com	Ships to 45 states. Site is easy to use and offers savvy analysis. Good selection of California wines; expanding offerings of foreign labels.
winebins.com	Boston-based offshoot of the Geerlings & Wade wine mail-order operation probably has the widest selection, with 2,000 wines. Strong in European labels and provides *Wine Spectator* and other listings.
wineshopper.com	This San Francisco-based site, which plans a nationwide network, hopes to "go live" by the end of March. Plans to offer lots of advice through accords with Winetoday.com, *Wine Spectator,* and other publications.

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"The trade temperature has dropped slightly, after an unusually warm summer, but there is no financial frost in the air as yet, and we look for a long stretch of Indian summer in industry before winter sets in. It is likely to be a fairly open winter at that."

– ***Business Week***, September 1929

If not for the irony, the words might be forgotten. When *Business Week* launched its first issue in September 1929, America seemed as bountiful as ever. "Employment holds up well," the new weekly declared, "money is still being made in the stock market and is turning over fast in trade." Weeks later, the stock markets crashed, world economies collapsed, and the U.S. faced its worst economic depression ever.

History seemed to be repeating itself as more than 100 CEOs gathered at the 1999 Business Week CEO Summit last September. On the occasion of the 70th anniversary of this magazine, the country's economic vital signs seemed all too ominous again. A growing list of Cassandras had begun foreboding the end of the 1990s' boom, as the risk of inflation, rising trade deficits, and signs of an impending slowdown left investors on edge.

But if the Great Depression was caused by reckless investment and misguided regulation, the greatest dangers in 1999 lie in hampering the transformation of the American economy. The forces of technology and globalization are redefining trade and business, and encouraging a fundamental shift in economic thinking. That new thinking is the bedrock of the New Economy, an economy that values ideas as much as tangible goods, and one that allows the economy to march at higher growth with lower inflation.

"The most effective way to cope with change is to help create it."

– **Christine Todd Whitman,** Governor, New Jersey

In a full day of discussions and working group meetings at *Business Week*'s 12th annual CEO Summit, chief executives of mid- and large-cap corporations discussed the key challenges facing American business in the next millennium. Attendees met with lawmakers and economists who are building the legislative and economic models for the New Economy, and they discussed the specific challenges they face in their businesses.

"Since 1995, investment in information technology has begun to pay off," emphasized **Stephen B. Shepard**, editor-in-chief of *Business Week*. "Every second, seven people get onto the Internet somewhere in the world. Last year, Silicon Valley companies went public at the rate of once a week. Already more than half of all individual stock transactions are done online. There sure as hell is a new business cycle." That change rides on productivity improvement, the most critical part of economic growth over the past decade. "It's a productivity-led New Economy," Shepard noted. "When

"It's no longer necessary to be big business to be global – that's the real revolution."

– **Ben Verwaayen,** vice-chairman, Lucent Technologies

a slowdown occurs, it will come with a productivity slowdown." Of course, the economic changes will be a boon to some, but a perilous threat to others. The next several years will be a time of dislocation, volatility, and uncertainty. But they'll also be a time of significant opportunity.

"E-business will become the standard for business-to-business transactions."

– **Craig Conway,** president and CEO, PeopleSoft, Inc.

Quest for New Borders

American corporations have a unique, almost contradictory challenge in the New Economy: They must go global to grow, yet they must fuel global growth to maintain a robust U.S. economy. As the economic crises of 1998 illustrated, America's integration into the global economy has hefty risks, not least of which is a growing political movement against globalization in the U.S. and Europe. The concept of globalization itself is not new, of course. *Business Week*'s premier issue in 1929 covered all manner of global markets and trade opportunities for American companies. For the past decade, globalization has been a keyword for future prosperity and the path to elevating the world's economies. But globalization in the New Economy means a lot more than breaking into a new market or cutting labor costs. In the coming years, it will come to mean integration into foreign economies and crossing borders to generate new ideas, build core competencies and improve R&D. Equally significant, globalization will be a universal requirement for large and small companies alike.

Globalization today entails a new mentality that **Ben Verwaayen**, vice-chairman of Lucent Technologies calls the second phase. "Globalization in phase one was about being physically elsewhere," he said. "Now the second phase brings together global units to add value to the business. By definition, every company is global," added Verwaayen, "but it's no longer necessary to be a big business to be global – that's the real revolution."

By that measure, only about 20 percent of the world's corporations are truly global today, estimates **Rajat Kumar Gupta**, managing director at McKinsey & Co. In fact, a survey of CEOs in the audience found only 6 percent believe their companies are truly global, and only a quarter believe they are on the last mile of true globalization. Yet, close to two-thirds are nowhere near global, and about 5 percent said they have no plans to go global at all.

"It's not a talen shortage, it's about learning how to get talen

– **Rajat Kumar Gu**
managing director, McKinsey & Co.

Still, the open markets mentality is clearly winning over protectionism, Gupta said, and economies are rapidly warming to foreign corporations. "The clear driving force in all of this has been the globalization of capital markets," he stressed. Global capital markets are a critical piece in Aon Corporation's strategy into the next millennium. "We started in the early 1990s with an insurance opportunity that went global," said **Patrick G. Ryan**, chairman and CEO. For Aon, the decision on globalization was simple Ryan said: "It was either globalize or perish." As Aon figured it, distribution would become the key factor for any financial services company, and serving as a global advocate for clients would become a differentiator that would play to Aon's skill set. To cross borders, Aon chose a Dutch company that served as a springboard across other borders. "We believed that the European companies understood global culture better than we did," he said. Not long after, the

Globalization vs. Europeanization

Michel de Rosen
chairman, CEO and president, Rhone Poulenc Rohrer

Jose Bove, the mustachioed, swashbuckling sheep farmer who, by attacking a French McDonalds chain, became a French hero this summer, is a potent symbol of Europe's fear and resistance to globalization. If America's biggest challenge is looking beyond its borders, Europe's is looking within its own borders. European union has been under way for several decades, yet no event has been as significant as monetary union that began in 1999. "In Europe, people speak of 'Europeanization,'" said **Michel de Rosen**, chairman, CEO and president of Rhone Poulenc Rohrer, "I think many Americans underestimate how important this event is for Europe. Globalization is simply less important than Europeanization." Less than 20 years ago, Europe was far from a capitalist continent, de Rosen explained, and most of the social structures had a socialist feel. As corporate management and business structures change, the changes are increasingly being seen as Americanization. And as the American companies push globally, so has the fear of Americanization – that aggressive greed will overcome the traditional European way of life.

"But don't be impressed by the 'music,'" de Rosen stressed, "We are still businessmen and care about the facts. The trick is to not use dirty words like 'privatization.'" Behind the scenes, major changes are happening, he said, and many are sparking an entrepreneurial spirit. But while Europe is changing, de Rosen warns American executives against trying to force Americanization. "Americans should not expect everyone around the world to be like them," he said. "Globalization is not Americanization."

he Real Challenges

OGER SIBONI,
esident and CEO
piphany

The biggest risks of the New Economy are yet to come, most speakers agreed. Those who move slowly have the most to lose. "The acceleration of business increases the risk levels," said **Adrian Slywotzky**, vice-president and member of the board of directors at Mercer Management Consulting, "and the winner in market share develops a market value that's five to six times larger than his competitors." For incumbents, that's food for thought. As new players try to steal a bite of the pie, incumbents must pre-empt the competition. "If the market's big enough to keep you going for a while, that's fine," Slywotzky said, "But if you don't move early, your chances of recovery are nil."

What is clear is that the stage is being set quite rapidly, said **Roger Siboni**, president and CEO of E.piphany. "The winners and losers are eginning to define themselves at an alarming rate," he stressed. "The next phase of the New conomy won't be about productivity but about understanding the customer."

erhaps the biggest effect will come from mainstream access to broadband Net connections nd "always on" Internet connections. "The business impact of the Internet has been dramatic ecause there has been bandwidth available," said **Thomas Jermoluk**, chairman, president, nd CEO of Excite@Home. "What will change with broadband and 'always on' is it will integrate ow things are done. I don't believe actual devices will merge, but many functions will merge."

"A combination of brick and mortar and e-commerce is the right way to go."

– **JOE MARENGI,** senior vice-president and group general manager, Dell Computer Corp.

ternet explosion paved a smooth road Aon, Ryan said. "Building distribon and blending that with IT is critito where we go from here," he said.

One of the most critical parts of obalization is the talent that's abroad, essed Verwaayen. "In globalization, e human factor cannot be underimated," he noted. "Brains are not clusive to one region of the world or other." As a result, an all-out battle r talent will emerge in the coming ars, he said, and Lucent, for its part, tends to locate closer to the talent as ll as our customers. But appearances n be deceiving, said Gupta. "It's not a lent shortage that's on, but it's about ow to get talent," he notes. Whereas nsultancies once relied on business hool grads, for instance, a little less an half of their recruitment now mes from disciplines other than Bhools. And if globalization is to work the new economy, intellectual propty must be protected. "We spend 12 20 percent of revenues on R&D, so intellectual property is critical to us," said **Michel de Rosen**, chairman, CEO and president of Rhone Poulenc Rorer Inc. "Intellectual property is like a dam; a small hole can lead to a huge gash."

As the drive to globalize accelerates, industry consolidation will move ever faster. The facelift has accelerated in financial services, which has witnessed a European invasion of sorts. "Europeans have been aggressive in consolidating locally then globalizing," said Gupta. "There's still a fair amount of overcapacity." The massive three- and four-way mega-mergers seen in 1999 may become a more common element in years to come, many agree, but they might not be the ideal solution. "Mergers are easy to decide and difficult to implement," said de Rosen, "But I'm skeptical about these three- or four-way mergers because they multiply by three or four the complexity and challenges."

"Don't confuse technology with business strategy."

– **DONALD MARRON,** chairman and CEO, Paine Webber Group Inc.

Harnessing the Network

No technology will be as efficient an enabler or as tumultuous a balancer as the Internet, the New Economy's second underpinning. As companies struggle with a new breed of nimble online competitors, they'll need new strategies to compete in the brick-and-mortar world. Ultimately, that means combining online presence with an efficient "real world" counterpart. The Internet is shifting control from seller to customer, requiring a completely different way of measuring the perceived value of a product or service. As a result, e-businesses must offer a unique value proposition that's not available elsewhere, said **Adrian Slywotzky**, vice-president and member of the board of directors at Mercer Management Consulting. "You're moving beyond segmentation to 'self segmentation,'" Slywotzky said. "You're reversing the role of the customer." Equally important, Slywotzky noted, is the collapse of the middleman and the changing perception of value. "The customer either wants the lowest cost or the highest value package," he said.

An integrated series of services was Paine Webber's means to improving the value of its services, said **Donald Marron**, chairman and CEO of Paine

"Companies must think innovatively about how to exploit their own value in order to compete with fierce 'dot com' competitors." – **JERRY A. GREENBERG,** co-founder and co-chief executive officer, Sapient

"Distribution will become a critical role in the future, and being an advocate for our clients is a point of differentiation." – **Patrick G. Ryan,** chairman and CEO, Aon Corp.

Webber Group Inc. When the company built its web services, it targeted a young audience searching for a one-stop shop of financial products and consolidated statements. "We thought it would appeal to younger people. But, in fact, it has been adopted by our biggest and older accounts."

But if e-commerce is built on technology, e-commerce strategy should be built on business, Marron warned. "Don't confuse technology with business strategy," he stressed. "You need to spend your time and your money on that." That often means balancing brick-and-mortar sales with e-business. "In reality, a lot of people want the physical side of our business, so we have to have all the online and physical business that our customers may want," Marron noted. The need for both online and brick-and-mortar stores was a common theme among all the panelists, who noted that the two pieces must complement each other. "Why does Schwab still have 200 offices? Because people want to be near their money," Marron insisted. "In any business, unless you accept to cannibalize some of your existing business, there's no way of doing e-commerce."

In fact, e-commerce will depend as much on the brand power of brick-and-mortar stores as on the efficiency of their "dot com" initiatives. **Jerry A. Greenberg**, co-founder and co-chief executive officer of Sapient, argued "these companies must think innovatively about how to exploit their own value in order to compete with fierce dot com competitors."

A critical part of any e-commerce strategy is shifting from a document-oriented company into a digital transaction-based one. "Companies that have moved to a truly digital business model have averaged 8 percent higher growth," said Slywotzky. Digital business strategies are applicable to all business, he insists, citing the example of Mexican cement manufacturer Cemex that has harnessed the net for business-to-business sales. Until recently, even Dell Computer was a document-oriented company that took orders manually as they came off the web. But increasing sophistication in the management of the online business has allowed the company to use digital orders directly, and continue its breakneck growth. "We've continued to evolve to higher-level products and services," said **Joe Marengi**, senior vice-president and group general manager at Dell Computer Corp., "but it's the customer who's at the forefront of that."

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Politics of the New Economy

Rudolph Giuliani
Mayor,
New York City

As the New Economy shakes the foundations of business, it is also changing the foundations of politics. Nowhere has that been more true than in New York and New Jersey, where new thinking about business and business regulation have reestablished the region as a Mecca for entrepreneurs.

"The city has to understand the value of business," stressed **Mayor Rudolph Giuliani** in his morning remarks to attendees. A clear example of that new thinking is the hotel occupancy tax, which, Giuliani says, has been scaled down from excessive levels to spur a boom in trade show and conferences in the city. "I consider this one of the things that my administration has done that doesn't get enough attention," he said.

The change has also happened in New Jersey, which is reaching unprecedented levels of prosperity, said New Jersey Governor Christine Todd Whitman in her keynote afternoon address. "The most effective way to cope with change is to help create it," she stressed, "That's why I believe that – at the state and federal level – America must encourage the growth of international trade and help shape the way that trade is conducted."

Whitman emphasized that government can play a significant part in cultivating the New Economy, even if that role is not what it was in the past. "Frankly, I believe that one of government's chief roles as we move into the next century is to make an environment conducive to innovation and productivity," noted Whitman. "This means reducing government's role in some areas, such as trade barriers and pricing. It also means forging an activist role in others, such as promoting competition." It also means providing good schools and a sturdy transportation network, she added.

"We've made the smart, long-term, fiscal choices so that New Jersey can be more secure and more prosperous for future generations," she said. "But all this good news on the economic front – both in New Jersey and across the nation – means we have to work even harder to stay ahead."

SMALL PRICE TO PAY OR RETIREMENT

ROBERT BARKER

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You've probably spent lots of time figuring out how much to save for retirement. But do you really have any idea how much you'll be able to spend once you retire? That's a devilish question, one that most people try to answer with crude assumptions and crossed fingers—or with the costly help of a financial planner whose assumptions likely aren't much better.

Stepping between those two alternatives, T. Rowe Price recently caught my eye with a new service, Retirement Income Manager. Built on software the $166 billion investment company hopes to patent, the service costs $500. That's a lot more than the free plan you might develop online or in an employer program. Yet it's one-third or less what you might pay a private financial planner. I wondered, is it worthwhile?

That's why I set out to look over the program myself, talk to potential clients plus some who are using it now, along with financial planners at rival fund companies and some independent experts. John Stophel, for one, is a 51-year-old Newington (Conn.) banker who is using a variety of software and services as he and his wife, Leslie, plan to retire early. Retirement Income Manager, Stophel told me, "is just a cut above anything else." I agree: It's a bargain.

"MONTE CARLO ANALYSIS." The service (800 231-2795) starts with a 25-page questionnaire mailed to you by TRP. It asks about your savings, what retirement income you expect, your attitudes on risk, and what legacy, if any, you hope to leave. TRP then takes about three weeks to size up your situation, checking details by phone and getting it all in a computer. Next, the software performs a so-called "Monte Carlo" analysis to simulate your chances of drawing a given income. Then, it uses a second mathematical technique, called multi-attribute utility theory, to find what mix of investments best suits your set of competing aims—to leave an inheritance, for instance, while seeing only small swings in your portfolio's value.

TRP sends its recommendation, plus two alternatives, by mail. They include how much income to draw each month, a portfolio strategy, and clear, complete explanations. One strength of the service is its recognition that many retirees own variable annuities, which can be costly and inflexible. Retirement Income Manager doesn't flinch at annuities, but incorporates them into a full portfolio strategy. Naturally, TRP is selling this service in hopes it will help it retain customers and get new ones for its funds. But you might just as easily take its recommendations and have any financial firm carry them out.

The service is neither complete nor perfect. It can't help on what to do if a big chunk of your assets is in one or two stocks. Nor can it wrestle with a large stash you may have amassed in an ordinary, taxable account. Investing that while minimizing your tax bill is a complexity unto itself. Also, the four hours or so TRP expects to spend on the phone counseling each client may not be enough contact, or the right kind, for some. Kent Oberle, a 51-year-old accountant at Phillips Petroleum in Odessa, Tex., told me these issues are so crucial that he'd want to meet his adviser. "I don't know if I'm going to want to take pot luck with whoever T. Rowe Price assigns that day to answer the phone," he said. But Antoinette Jahoda, a 70-year-old retiree in Roslyn Heights, N.Y., praised the phone service. "They were really on top of it," she told me.

TRP rivals Fidelity Investments and Vanguard Group offer good one-shot planning, too. Vanguard's costs $500, while Fidelity's is free. The difference is the software. Theirs, like most planners', project forward the annual average returns stocks, bonds, and other assets have delivered in the past. But if the assets return less than the long-run averages early in retirement, compounding power gets sapped. TRP's analysis, by contrast, simulates 500 scenarios—terrific, terrible, and many in between—to find a safer level of income.

TRP doesn't guarantee its forecasts. Yet if I were retiring with, say, $500,000, I wouldn't hesitate to spend 0.1% of that for the best advice around.

For barker.online, go to www.businessweek.com/investor or AOL keyword: BW Daily.

Making Your Nest Egg Last

Knowing how much to spend while in retirement is tricky. The answer depends more on your rate of withdrawal than on how you split your portfolio among stocks and bonds.

G SPENDER If you withdraw 8% each year (adsted annually for 3% inflation) from a portfolio of)% stocks and 40% bonds, the odds are 21% that u won't run out of money after 20 years.

ARING INVESTOR If your portfolio is 80% ocks and 20% bonds, the odds rise to 31%.

HRIFTY RETIREE If you withdraw only 6% of ur assets each year, the odds of not running it of dough jump to 77% for the 60-40 portlio and 78% for the 80-20 portfolio.

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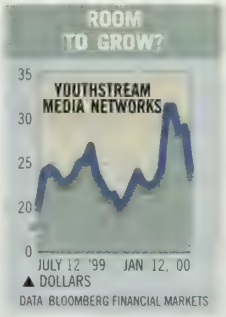
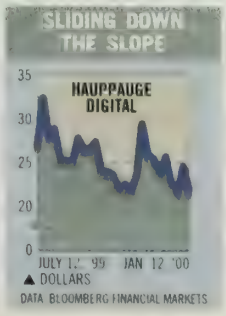
YouthStream Media Networks (NETS), formerly known as Network Event Theater, is aimed straight at the much-sought-after young adult market, including high school and college students. It provides offline and online media and marketing services, such as instant messaging and content for students on various pursuits including travel, shopping, and music. And with its recent acquisition of sixdegrees.com, an online community of 3 million members in 165 countries, YouthStream has become an enticing target, say some pros, for the likes of News Corp., one of the leading media companies with the greatest appeal to young adults. Since News Corp., headed by media mogul Rupert Murdoch, is the largest investor in sixdegrees, it has become a big investor in YouthStream.



"I wouldn't be surprised if News Corp. increases its stake in YouthStream," says media analyst Scott Barry of Raymond James & Associates. He rates YouthStream a buy. The stock, first highlighted in this column on Dec. 21, 1998, when it was at 10, hit 32 on Dec. 14, 1999, before easing to 24 on Jan. 12. Barry says the stock is worth 65 because it is positioned to be the dominant hub targeting young adults.

YouthStream's purchase of sixdegrees gives it access to News Corp.'s Fox Broadcasting sports and news feeds, for incorporation into its Web site—mybytes.com. YouthStream CEO Harlan Peltz says there will be a lot of opportunities to integrate Fox content further into mybytes.com, the premier Web site for the 15 million-strong college market. James Murdoch, executive vice-president of News Corp., says the combination of YouthStream and sixdegrees can play a "significant role in our Internet strategy." News Corp. looks forward to "exploring ways to deepen its relationship with YouthStream," he adds.

HAUPPAUGE CLICKS IN PC VIDEO GEAR

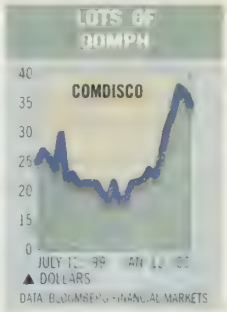


When the stock of Hauppauge Digital (HAUP) skidded 22%, to 20 a share, in mid-November—down 47% from its 52-week high—just one month after he had rated it a buy, Joel Krasner of FAC/Equities was unfazed. He upgraded his call to a "strong buy," confident that the drop had nothing to do with fundamentals. Hauppauge makes video products for PCs, and Krasner thinks the stock is a bargain at its current 22, based on his diluted earnings estimates of 85¢ a share for 1999 and $1.13 in 2001. After checking with Best Buy and Circuit City Stores about Hauppauge's fast-selling product, WinTV boards, Krasner reckons the company will beat expectations in the first quarter of 2000. WinTV boards let PC users watch TV in a window on their video monitors while using their computers. "As the largest independent player in video products for PCs, Hauppauge is an attractive takeover prey," says Krasner. He suspects a major PC maker has approached Hauppauge. The company was first featured in this column in May, 1999, when it was trading at 12. It streaked to 38 by May 24. "That's where the stock is now headed," he says.

READY TO ROCK AT COMDISCO

Comdisco (CDO) is on the move. Shares of the tech-services company bolted from 18 a share in August to 34 by Jan. 12. What's going on? Two things: Some pros expect Comdisco to hasten the timing of the initial public offering it plans for its Prism Communications unit—a high-speed Internet access provider—to early March. And the board-approved creation of a tracking stock for its Comdisco Ventures unit, which invests in venture capital-backed companies, including budding Internet outfits, could also come earlier.

"Hidden value exists in the Ventures unit, with its numerous ownership stakes in many private high-tech companies," says Michael Grondahl, an analyst at U.S. Bancorp Piper Jaffray, who thinks Comdisco is worth 55 a share based on the estimated worth of both Ventures Group and Prism. He figures Prism and Ventures are each worth $2 billion to $3 billion. Nortel Networks and Williams Communications have each invested $10 million in Prism for 1% stakes.

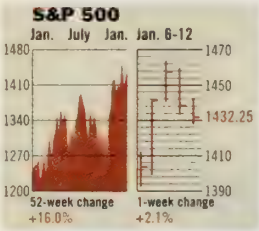


Grondahl expects to see a lot of oomph in Comdisco shares, especially in the period before the Prism IPO is launched and the Ventures tracking stock is off the ground. Ventures currently has 12 companies in its portfolio that have applied to go public. Ventures' investments have been making good money. As of Dec. 31, 1999, the Ventures unit held equity stakes in 425 companies, 65 of which are publicly traded and 360 privately held. The value of its publicly held companies, which include such names as NextCard, E.piphany, and Critical Path, has jumped to $400 million, from $194 million in September.

Grondahl says Comdisco deserves a higher p-e ratio to reflect its blended earnings from leasing and tech services. He expects Comdisco, which has a $1 billion backlog in the tech-service business, to earn $1.85 a share this year. He rates the stock a "strong buy."

Figures of the Week

STOCKS



COMMENTARY

Bond prices fell during the week, pushing the rate on long-term Treasury bonds up over 6.7%. Still, the stock market, with the exception of technology companies, seemed to shrug it off. Money appeared to be moving into beaten-up sectors such as financials, transportation, and utilities. Those sectors are interest-rate sensitive, and their strength suggests rates are near their peak.

Data: Bloomberg Financial Markets

U.S. MARKETS	Jan. 12	% change Week	Year-to date	Last 12 months
Dow Jones Industrials	11,551.1	3.9	0.5	21.9
Nasdaq Composite	3849.9	–0.7	–5.4	65.9
Nasdaq 100	3478.1	–0.8	–6.2	79.3
S&P MidCap 400	432.7	1.5	–2.7	12.6
S&P SmallCap 600	192.0	2.0	–2.9	8.7
S&P SuperComposite 1500	301.0	2.1	–2.5	15.1
SECTORS				
S&P/BARRA Growth	855.6	1.3	–3.6	23.7
S&P/BARRA Value	602.4	3.1	–1.3	6.4
S&P Basic Materials	139.3	0.3	0.8	20.0
S&P Capital Goods	1084.7	4.1	–2.3	25.5
S&P Energy	848.4	3.7	1.7	19.9
S&P Financials	126.6	4.6	–4.9	–5.2
S&P REIT	75.9	4.4	3.1	–10.1
S&P Transportation	609.1	6.2	2.0	–11.2
S&P Utilities	237.9	3.7	4.7	–6.7
GSTI Internet	635.6	–8.8	–10.8	48.1
Morgan Stanley Cyclical	584.3	3.2	–0.2	17.1
PSE Technology	932.3	2.5	–4.1	93.6

GLOBAL MARKETS	Jan. 12	% change Week	Year-to date	Last mo
S&P Euro Plus	1485.7	2.5	–4.3	1
London (FT-SE 100)	6532.8	0.0	–5.7	
Frankfurt (DAX)	6912.8	6.3	–0.7	3
Tokyo (NIKKEI 225)	18,677.4	–1.7	–1.4	3
Hong Kong (Hang Seng)	15,714.2	–0.8	–7.4	4
Toronto (TSE 300)	8360.0	2.9	–0.7	2
Mexico City (IPC)	7174.1	6.1	0.6	10

FUNDAMENTALS	Jan. 11	Week ago	Ye ag
S&P 500 Dividend Yield	1.17%	1.20%	1.2
S&P 500 P/E Ratio (Trailing 12 mos.)	31.9	31.1	32
S&P 500 P/E Ratio (Next 12 mos.)*	24.7	24.0	24
First Call Earnings Surprise*	17.14%	19.18%	15.1

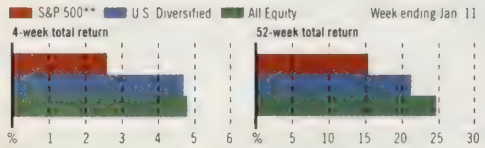
*First Call Corp.

TECHNICAL INDICATORS	Jan. 11	Week ago	Reac
S&P 500 200-day average	1350.9	1431.1	Posi
Stocks above 200-day average	29.0%	25.0%	Posi
Options: Put/call ratio	0.45	0.46	Nega
Insiders: Vickers Sell/buy ratio	0.68	0.66	Posi

BEST-PERFORMING GROUPS	Last month %		Last 12 months %
Health-Care Services	37.6	Instrumentation	151.9
Instrumentation	22.5	Communications Equip.	83.6
Metals	18.1	Aluminum	76.2
Entertainment	16.9	Health–Care Services	75.6
Semiconductors	16.1	Semiconductors	68.3

WORST-PERFORMING GROUPS	Last month %		Last 1 months
Regional Telephone Cos.	–12.5	Pollution Control	–67
Money Center Banks	–11.0	Tobacco	–52
Major Regional Banks	–10.2	Office Equip. & Supplies	–49
Housewares	–9.0	Manufactured Housing	–48
Toys	–8.8	Food Chains	–38

MUTUAL FUNDS



Data: Morningstar, Inc. **Vanguard 500 Index fund

EQUITY FUND CATEGORIES

Leaders Four-week total return	%	Laggards Four-week total return	%
Health	18.6	Financial	–4.4
Real Estate	11.3	Domestic Hybrid	1.5
Technology	10.1	Large-cap Value	1.8
Diversified Emerging Mkts.	10.0	Utilities	2.0
Mid-cap Growth	9.3	Communications	2.3
Leaders 52-week total return	**%**	**Laggards 52-week total return**	**%**
Technology	106.6	Financial	–9.5
Japan	98.1	Precious Metals	–8.0
Diversified Pacific/Asia	78.2	Real Estate	–1.9
Diversified Emerging Mkts.	67.7	Small-cap Value	1.7
Latin America	66.8	Large-cap Value	2.2

INTEREST RATES

KEY RATES	Jan. 12	Week ago	Year ago
MONEY MARKET FUNDS	5.39%	5.39%	4.71%
90-DAY TREASURY BILLS	5.43	5.43	4.45
1-YEAR TREASURY BILLS	6.12	6.00	4.49
10-YEAR TREASURY NOTES	6.70	6.49	4.74
30-YEAR TREASURY BONDS	6.71	6.53	5.16
30-YEAR FIXED MORTGAGE†	8.29	8.16	6.85

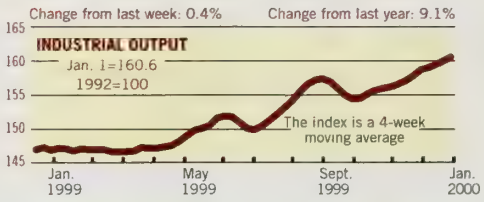
BLOOMBERG MUNI YIELD EQUIVALENTS

Taxable equivalent yields on AAA-rated, tax-exempt municipal bonds, assuming a 31% federal tax rate.

	10-yr. bond	30-yr. bon
GENERAL OBLIGATIONS	5.17%	5.94%
TAXABLE EQUIVALENT	7.49	8.61
INSURED REVENUE BONDS	5.33	6.21
TAXABLE EQUIVALENT	7.72	9.00

†BanxQuote, Inc.

BW PRODUCTION INDEX



Information on each of the index components is at www.businessweek.com.
BW production index Copyright 2000 by The McGraw-Hill Companies

The production index increased in the la week. Before calculation of the four-week m ing average, the index also rose, to a revi 162.7, from 161.1. Crude-oil refining out was particularly strong. For December, the in jumped to 160.8, from 157.8 in November. cause of revisions made to the Federal Reser industrial production data, the BUSINESS W production index has been refigured for the two years. The revised data are available www.businessweek.com.

THE WEEK AHEAD

HOUSING STARTS *Wednesday, Jan. 19, 8:30 a.m. EST* ▶ Housing starts were probably little changed in December from the annual rate of 1.6 million posted in November. That's the median forecast of economists surveyed by Standard & Poor's MMS, a division of The McGraw-Hill Companies. Thanks to strong consumer supports and low mortgage rates, the home building industry in 1999 had its best year since 1986.

BEIGE BOOK *Wednesday, Jan. 19, 2 p.m. EST* ▶ The Federal Reserve will release its compilation of regional economic activity. The Beige Book is made available in advance of the upcoming policy meeting scheduled for Feb. 1-2. According to a separate question in the S&P MMS survey, all the economists polled expect the Fed to raise short-term interest rates by a quarter-point at the February meeting.

INTERNATIONAL TRADE *Thursday, Jan. 20, 8:30 a.m. EST* ▶ The U. S. trade deficit for goods and services probably narrowed only slightly in November, to about $25.5 billion, down from its record high of $25.9 billion in October. That suggests that foreign trade was a large drag on economic growth in the fourth quarter, even as domestic demand soared. Exports, which have fallen for two straight months, likely rebounded in November. Imports probably increased as well. Shipments of foreign goods have risen in each of the first 10 months of 1999.

FEDERAL BUDGET *Friday, Jan. 21, 2 p.m. EST* ▶ The U. S. Treasury is likely to report a budget surplus of $20 billion for December, says the S&P MMS median forecast. That would compare with a deficit of $5.2 billion in December, 1999.

BusinessWeek ONLINE

For more investment data and the components of the production index, visit www.businessweek.com.

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Tuesday

Kevin Gooley of S&P Personal Wealth (the financial planning tool) tells us how he sees the market for 2000—and which stocks S&P ranks highest. **Jan. 18**
4:30 p.m. EST

Thursday

Is online trading hurting mutual funds? BW's resident expert, Jeff Laderman, can answer that question—plus reporting on what the latest Mutual Fund Scoreboard shows. **Jan. 20**
9 p.m. EST

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THE GREAT IRONY OF AOL TIME WARNER

Whatever else it may be, the megamerger between America Online and Time Warner is highly ironic. Celebrated as the victory of the new digital economy over the old, the first big conglomerate of the Internet era is actually an industrial-age corporate model of vertical integration based on ownership rather than a Net-centric virtual model based on partnerships. Trumpeted by many as the wave of the future, the merger's logic and valuation are in fact being viewed with reserve and caution in the stock market. Hyped as the revenge of the high-tech nerds, the leading executives in the giant deal are in fact conventional mass-marketers to Middle America. At this point, no one knows whether their business model is the right one for the Net age.

What is certain is that AOL has been able to leverage its high-flying stock into ownership of extremely valuable assets. On the distribution side, AOL will soon be able to tap into Time Warner's vast cable system. This comes at a time when high-speed broadband access to homes is clearly the next step in the evolution of the Net. On the content side, AOL purchased many top-quality brands, including *Time* magazine, CNN, and Warner Bros. Better brands could mean more eyeballs on the Net, and more eyeballs should mean more advertising.

What is equally certain is that Time Warner failed in its own attempt to leverage its magazines, music, and movies into a major Internet business. To plug into the Net, it had to give up control to AOL and accept inflated Net stock for its assets. True, Time Warner was able to get rid of $18 billion in debt and cash out at a significant premium, but the price for playing the Internet game came high.

So why is Wall Street skeptical, as evidenced by the sharp decline in the market value of the newly combined comp At one point, on Jan. 12, the combined market value of two companies was actually lower than before the merger nouncement. One explanation may be that the Street is w dering whether AOL is abandoning what made it so succes in the first place—amazing growth stemming from a nin management style that showed a willingness to link up w anything, from anywhere on the globe, that might att customers.

Then there is the competition. AOL is paying a high mult to gain access to broadband cable just as broadband t phone, satellites, and wireless are heating up. Telephone c panies are rolling out high-speed DSL lines even as Time W er puts in its cable-modem connections. Wireless mobile ac may pose the greatest challenge by allowing people to con to the Net with their cell phones or Palm Pilots. Investors r be wondering where the logic is in AOL paying a high price just one platform that reaches only a fraction of the U. S.

In many ways, the creation of a huge vertically integra conglomerate challenges the entire ethos of Net corporate ture. The new AOL Time Warner, with its vast production cilities and widespread distribution systems run by m marketers, has more in common with Standard Oil of 1920s and General Motors of the 1950s than with Yahoo may very well be that, in the pell mell rush to the Infor tion Age future, a corporate model of the industrial p proves most successful. But that will be partly decided in months ahead as Wall Street weighs the true value of Time Warner and compares it to rivals who choose partn ship over ownership to compete in the Internet era. hard to imagine a more exciting start to the new millenni

MUTUAL FUNDS: TIME TO CLEAN HOUSE

What's wrong with mutual funds? Investors are putting fewer dollars into them despite boffo stock market gains. Money flows into equity funds in 1999 were 30% below those of two years ago (page 66).

Certainly, poor performance counts for much of the disenchantment. Even though many fund managers outperformed last year's total return of 21% by the S&P 500-stock index, most have missed the boat over the last five years. Tied to their old models, many managers didn't "get" the New Economy of high technology and globalization that favored big-cap stocks and altered views on valuation. It's time these managers learned the basics of the information era or got out of the business.

But there are also problems that go to the core of the mutual-fund industry. Most managers are compensated on the basis of the size of the assets they control. Shareholders, however, want to maximize performance, not size. Indeed, size can often prove detrimental to boosting total return. ing management fees to benchmark performance, as ma Fidelity and Vanguard Funds do, is one way to go.

Lowering expenses is another. The benefits of hu economies of scale that come with electronic trading not being passed on to investors. The average exper ratio for equity funds is actually up to 1.55% from 1.45% decade ago, according to Morningstar Inc. And higher fe aren't always associated with higher returns. Some fu families with lower than average expenses have bet returns. Cutting expenses could raise returns and attr investors.

It might also surprise people to know that there supposed to be independent directors on the boards. But f of the actual directors represent the interests of shareho ers. Crony boards have no place in the mutual-fund indust It's long past time to get rid of them.

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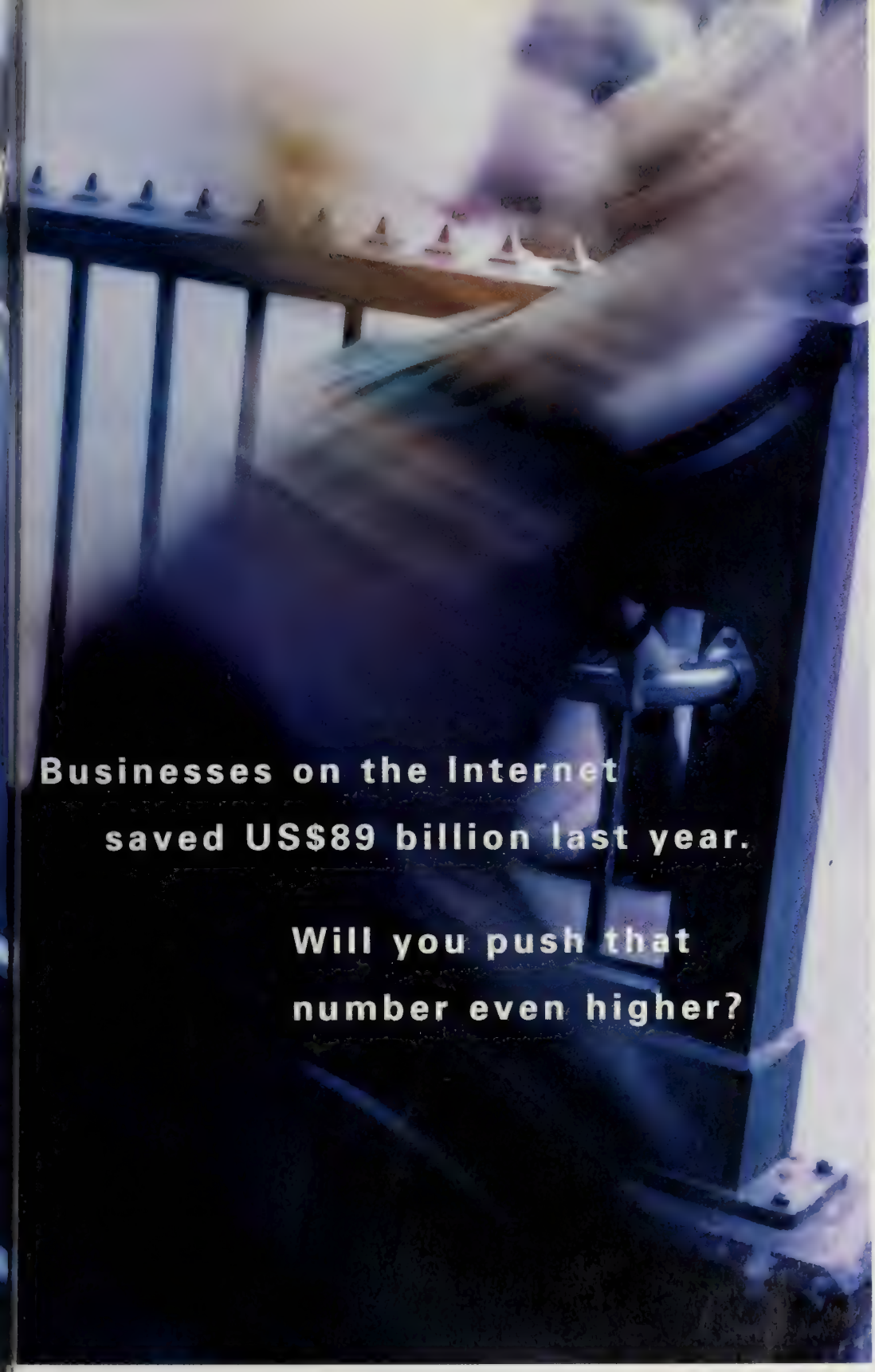

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COVER STO

FAST TRACK

The booming U. economy is drivi other nations to adopt New Econ concepts for themselves

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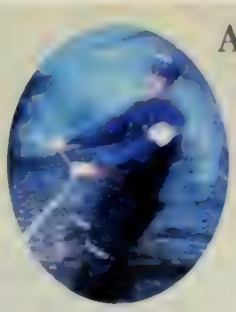

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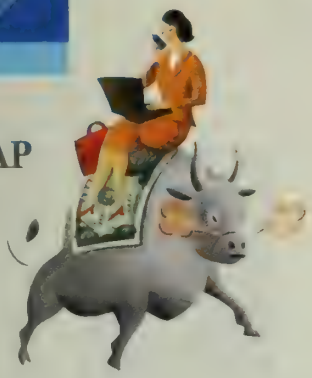

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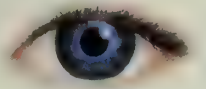

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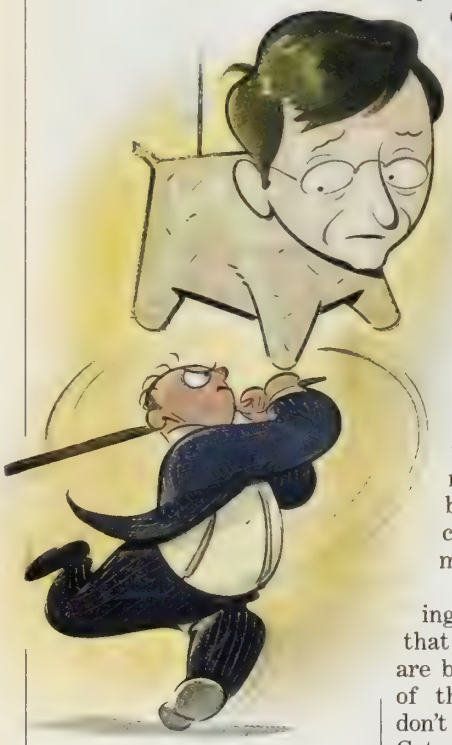
Up Front

EDITED BY ROBERT McNATT

LITIGATION NATION

BASHING MICROSOFT (WHATEVER THAT IS)

FOR PLAINTIFFS' ATTORNEYS, Judge Thomas Penfield Jackson's 150-page "Finding of Fact" in the Microsoft antitrust case has been a veritable treasure map. Released on Nov. 5, the document describes everything Microsoft did wrong and lists specific evidence supporting each and every government allegation against the software giant. Jackson even throws in a few incendiary quotes about how the company's practices have hurt consumers. Scan the ruling into a word processor, add some legal boilerplate, and presto: instant class action.



Some of those Microsoft-bashing lawyers might do well, however, to check their briefs a bit more closely. More than 80 class actions have been filed against the company since November, and new ones arrive almost daily. But in spite of having their entire case laid out before them by a federal judge, some of the plaintiffs' lawyers have managed to get a few basic facts wrong.

One of the new suits, filed just three business days after Judge Jackson released his findings, identifies Microsoft as a company "with its principal place of business located within the state of Texas." No doubt that will come as a surprise to the 18,000 employees who work at the software maker's headquarters in Redmond, Wash., just outside of Seattle.

Another one of the class actions soberly refers to Microsoft as a supplier of "generic drugs." The filing then proceeds to define "API"—one of the many technical acronyms that are being bandied about in the case—as an "active pharmaceutical ingredient."

Microsoft is brandishing these errors as proof that the new class actions are bogus. But even if some of the attorneys involved don't know exactly where Bill Gates works, their suits can't be summarily dismissed. The cases claim that the company abused its monopoly power by overcharging for the Windows operating system. That charge is supported by some of the government's evidence. One 1997 Microsoft study, for example, concluded that the company should charge $89 for a Windows upgrade—even though it could make a profit at $49.

With those types of documents floating around, it's possible that despite their dumb mistakes, the plaintiffs' lawyers could end up having the last laugh. *Mike France*

TALK SHOW "I hate those damn things. Always did. I wa never very good at them"

—George H. W. Bush, after watching George W. Bush in a televised Presidential campaign debate

SPORTS BIZ

THIS BAN MAY BE A SUCKER'S BET

THE NATIONAL COLLEGIATE Athletic Assn. suffered more game-fixing scandals in the '90s than in its entire prior history. Now it's looking to fix its image with a bill only a bookie could love. It wants Congress to ban legal betting on college sports.

NCAA: *Bets off?*

On Jan. 26, the NCAA will send Penn State football coach Joe Paterno and Dean Smith, former head basketball coach at the University of North Carolina, to Capitol Hill to push for the ban. The bill's co-sponsors are Senator Sam Brownback (R-Kan.) and Senator Patrick Leahy (D-Vt.).

Paterno and Smith square off against casino terests who say illicit cam betting—not the $690 mill legally wagered in Nev casinos each year on coll sports—is the true bad in ence on jocks. Casino lobby Frank Fahrenk Jr., former chairm of the Republic National Committ has lined up Sen Judiciary Chairm Orrin Hatch (Utah) to fight t bill. And that m be just a start. Ca no interests ga $6.3 million to poli cal campaigns in t last two years, sa Common Cause. for those placi bets on the outcome of t contest, here's a tip: No p wants to take a gamble campaign donations in an ele tion year. *Lorraine Woelle*

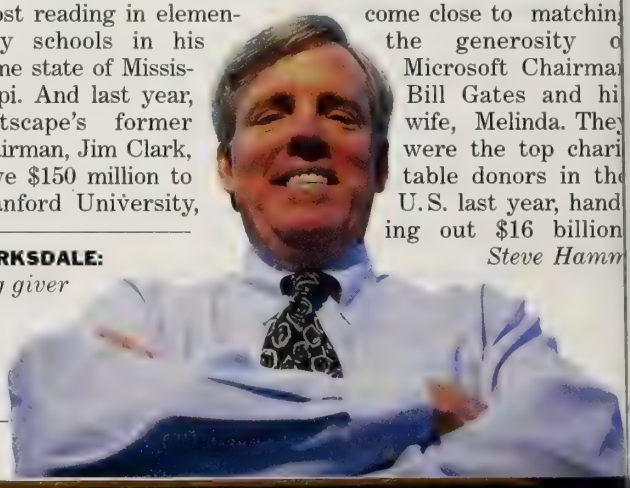
SILICON CULTURE

HEY, THEY CAN OPEN THEIR WALLETS

NETSCAPE COMMUNICATIONS made plenty of headlines during its heated Web browser war with Microsoft. Netscape also made plenty of people rich when AOL bought it last year. Now some of those rich people are giving back.

On Jan. 18, former Netscape CEO Jim Barksdale said he would give $100 million to endow a program to boost reading in elementary schools in his home state of Mississippi. And last year, Netscape's former chairman, Jim Clark, gave $150 million to Stanford University, where he once taught. The are the first of Silicon Va ley's Internet billionaires make such large gifts. The do so as the Valley's no veaux riches have been crit cized for being too self-a sorbed—or too greedy—f large-scale philanthrop Barksdale says many are ju too busy with work. But h hopes to set an example: "M dream is that a lot of th enormous wealth will go to lot of worthy causes that wi make a difference."

The Valley, however, hasn come close to matchin the generosity o Microsoft Chairma Bill Gates and hi wife, Melinda. The were the top chari table donors in th U.S. last year, hand ing out $16 billion *Steve Hamm*



BARKSDALE: *Big giver*

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*Modules sold separately. Availability may vary.

Up Front

I-WAY PATROL

LIGHTS! CAMERA! DOWNLOAD!

ALL THOSE DEALMAKING filmmakers at the Jan. 20-30 Sundance Film Festival had best look up from their cell phones once in a while. Otherwise, they might miss the Atom Short Bus, the motorhome Internet company AtomFilms will pilot through the street of Park City, Utah.

BLAIR WITCH: *$140 million gross*

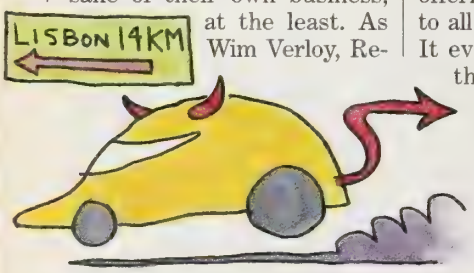
AtomFilms is one of a dozen such companies that will be at Sundance, seeking Net-worthy fare among the 2,000-odd short films there. "Last year...I spent most of my time explaining what the Internet was," says AtomFilms' Mika Salmi. "Now you have to keep from being trampled." True, no one expects a Web version of *The Blair Witch Project*, the indie hit that grossed $140 million. Instead, such upstarts as IFILM.com, MediaTrip.com, and clickmovie.com are looking for cutting-edge shorts for their e-audiences.

Internet companies pay little for Web film rights, maybe only $500. When a movie is played on the Web, the filmmakers get a fee. But the big lure may be options in a dot.com that may go public. "Of course, I want to be the next Spielberg," says Stuart Acher, whose sci-fi flick *Bobby Loves Mangos* was bought by AtomFilms. "But heck, getting rich off Internet stock isn't bad until that happens." *Ronald Grover*

OVER THERE

SPEED BUMPS FOR ROAD RAGE

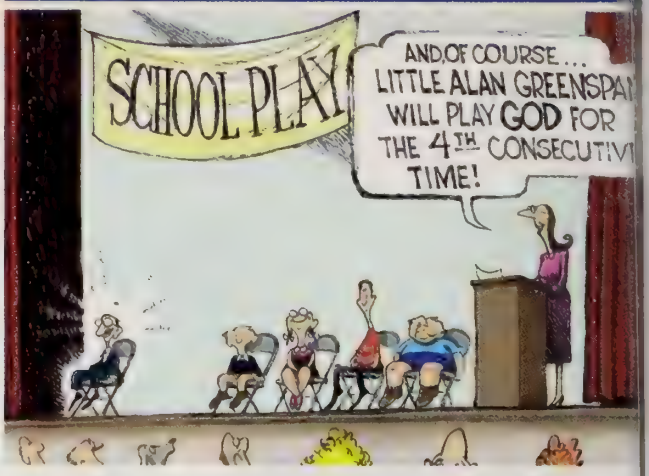
EUROPEAN AUTO MAKERS, including Renault, Volkswagen, Peugeot, and Mercedes, are worried about rising road rage. They're starting to take steps to curb foul-tempered drivers—for the sake of their own business, at the least. As Wim Verloy, Renault's promotions director in Belgium, says: "If people are afraid on the road, they won't drive as much."



Their worries were reinforced by a recent Belgian study showing that 73% of Europeans think aggressive driving, including obscene gestures and intentional collisions, is rising. "Our streets have become like a war zone," says Nathalie Crépin, director of Responsible Young Drivers (RYD), the study's main sponsor.

France's Renault, a co-sponsor of the study along with oil giant TotalFina, is offering free driving lessons to all its car buyers under 27. It even provided 120 cars to the RYD on New Year's Eve to chauffeur youth whose drinking might have led to trouble. Where is road rage highest? The study says that Finns and Irish are the best drivers, while Poles, Portuguese, and Greeks rate among the worst. But the trend is negative everywhere. RYD proposes harsh prison terms to punish aggressive drivers. *William Echikson*

DRAWN & QUARTERED



PRODUCT PEEK

REST EASY, YOU'LL BE BONE-DRY

DEALING WITH SOGGY corpses may not sound like a growth industry. But it has become that for a Cincinnati company, despite the understandable skepticism of its president.

SAFE AND SOUND: *No soggy corpses*

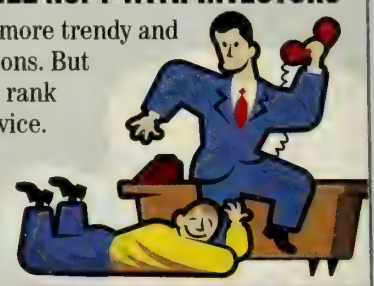
A big problem facing morticians is the fact that human bodies, which are 70% water, begin to leak soon after death. Funeral-home directors live in fear of fluids pouring out of caskets before bodies are buried. So Donald Douthit, research chief at the Cincinnati College of Mortuary Science, was thrilled when he stumbled across National Sorbents Inc., wh makes a wood-pulp absorb that can soak up 50 times weight in liquid. met with [Pre dent] Dan Jone says Douthit, "a said, 'Do you ha any concept what your mater could do for o profession?'"

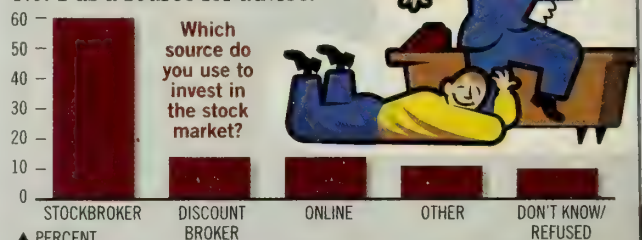
Preoccupied wi his main busine of selling absc bents for chemic spills, Jones clear didn't. But the co pany develop "Dry N' Lock" product which keep corpses dry f days, replace tissues remov for transplant, and reduce t mess caused by autopsie Douthit hails the produc while Jones is now eyeing a unforeseen $20 million plu annual market. *John Care*

THE BIG PICTURE

STOCKBROKERS STILL NO. 1 WITH INVESTORS

Online brokers may be more trendy and offer cheaper commissions. But traditional brokers still rank No. 1 as a source for advice.





DATA: QUICKEN SURVEY OF 402 RESPONDENTS; TOTAL EXCEEDS 100% DUE TO MULTIPLE RESPONSES

FOOTNOTES Teens who think an "excellent idea" is: parents urging them to excel at science, 55%; receiving a computer, 35%

DATA: LEMELSON-MIT AWARDS PROGRAM

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WILL THE NET BE THE DEATH OF MANAGED CARE?

In "Health care" (Industry Outlook 2000, Jan. 10), you note the continuing problems that managed-care companies will have, and you then conclude that the Internet will help the companies' bottom lines by improving inefficiencies. While that may be true, in fact, the Internet will play a much larger role in the fate of managed-care companies: It will bury them.

Patients, their families, and physicians will unite and use the massive information available on the Internet to demand the best treatment, irrespective of cost and no matter whether that physician and hospital is "in the plan."

Human resources departments will be inundated with demands for more choice in health plans. Eventually, America's large corporations will shift their health plans from a defined-benefit plan to a defined-contribution plan, just as with their pension schemes. The workers and their families will then be given X dollars with which to purchase health insurance, and it won't be managed care.

When the autopsy on managed care is completed, the cause of death will be listed as "the Internet."

Leon Reinstein, M. D.
Baltimore

BUSINESS WEEK is on target in looking to e-health applications to improve health care. In the past year, I have spent much time with hospitals, doctors, and HMOs and I did not find one that encouraged using e-mail to facilitate low-cost delivery and improved quality. The industry has a huge overhead in outmoded financial systems to serve an archaic structure, which is still based on handwritten patient charts that are virtually impossible to share among fragmented service providers. (I found the most reliable way of distributing chart information among service providers, even in the same HMO, was to carry my own copy.)

These data systems were designed by and for traditional management looking to squeeze savings from unit costs and bill handling. They have nothing to do with delivering better services through information management, which is what the Internet era is all about. The Internet payoff is still ahead, but the good news is that the potential to rescue an industry drowning in inefficiencies is unprecedented.

Robert Johnston
New York

IT MAY BE GE'S TURN TO GET SQUEEZED

"Welch's march to the South" (The Workplace, Dec. 6) gets the facts right about General Electric Co. and its chairman, Jack Welch. Unfortunately, the sto-

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ORRECTIONS & CLARIFICATIONS

table accompanying "Dealing with risk" usiness Week Investor, Jan. 17), included incomplete formula. The correct way to lculate the standard deviation of invest-ents is to average an investment's month-returns over the past 36 months or longer. en subtract the average from each of the dividual monthly returns. Square each fig-e, add the results, and divide by 36 or the mber of months looked at. The square root this number is the standard deviation.

"Portal Combat" (Information Technolo-, Jan. 17), Lycos Inc. was incorrectly iden-fied. Lycos is an independent company, of hich CMGI owns approximately 15%. It was cos, not CMGI, that orchestrated the glitzy ckoff of the Lycos Singapore site. Also, a ble should have listed Lycos among the ree U.S. companies leading the develop-ent of the Asian Web.

also performed a hatchet job against e Coordinated Bargaining Committee BC) of GE Unions, which represents ,000 hardworking Americans.

First, it accurately exposed the sup-er outrage at the company—one that ll generate more than $10 billion in ofit during 1999 but that nevertheless ces its U.S. suppliers to move their erations to Mexico so GE can "squeeze e lemon" even more.

However, author Aaron Bernstein was tally inaccurate when he said that I ewed the recent settlement with GE Louisville "as a solution" to GE's out-urcing of our union members' jobs. hat I said was that when we won reement from GE to invest $200 million our Louisville plant, it showed that eneral Electric can invest in good jobs ere in the U.S. and can bargain in good ith with unions about investing in union bs instead of just closing plants.

More important, Bernstein misrepre-ented the most unified and aggressive ntract campaign waged by our 14 CBC nions and the AFL-CIO in the past 30 ears. To dismiss the enormous resources f our 14-union coalition in challenging he wealthiest corporation in the world y calling my union "nearly bankrupt" nd the campaign's war chest "paltry" s to stand facts on their head.

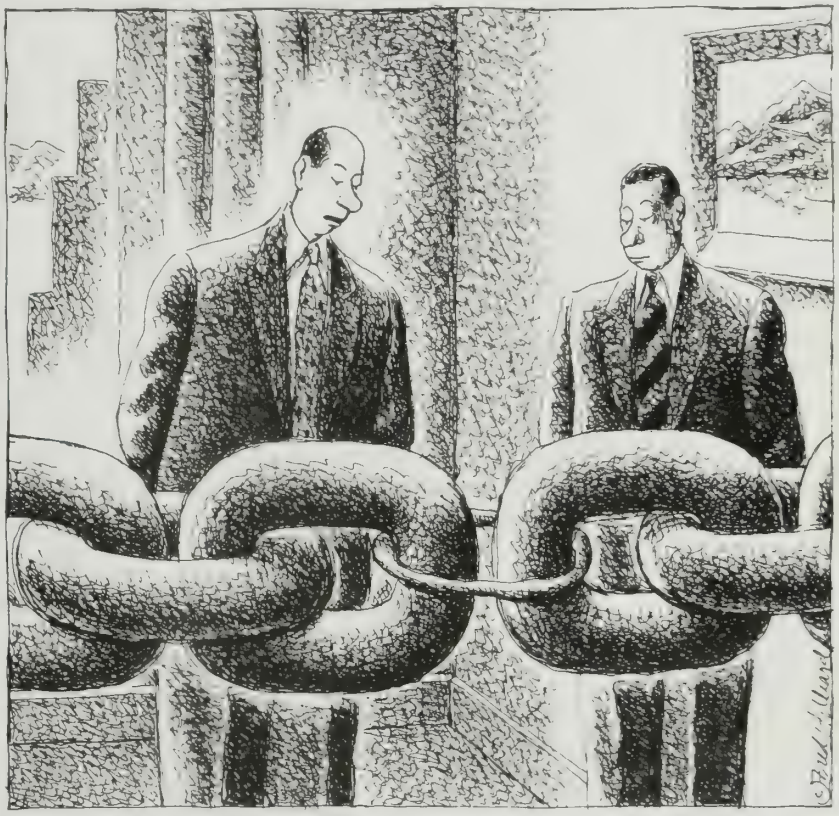
GE's short-term "profit before people" hilosophy is the lemon that needs to be queezed. In our negotiations with GE his summer, our unified coalition intends o do the squeezing.

Edward Fire
President
International Union of
Electrical Workers
Washington

THE POOR ARE LEFT OUT OF THE GLOBAL ECONOMY

Important evidence is missing from your optimistic analysis of globalization ("The spread of prosperity," Editorials, Jan. 10). A recent World Bank report, *Global Economic Prospects 2000*, shows that, while gross domestic product in developing countries grew by more than 3% a year from 1987 to 1996, the number of people living on less than $2 a day increased, from 2.5 billion to 2.7 billion. While poverty fell in East Asia and the Pacific, it rose in Eastern Europe, Central Asia, Latin America, the Caribbean, and sub-Saharan Africa.

The report finds that growing inequality is one reason economic growth is not reducing poverty. The World Bank estimates that, unless trends are reversed, about 2.7 billion people will still live on $2 a day in 2008. This evidence suggests that the assumption that globalization has "raised millions of people



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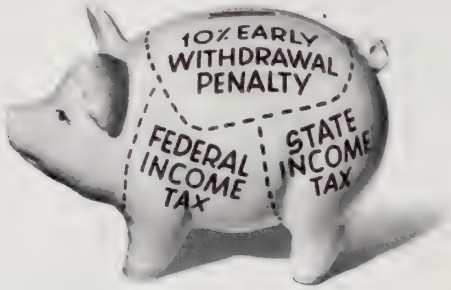

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Readers Report

in developing nations from privation" questionable at best.

Graham S
Silver Spring, M

E-COLLEGE CAN TEACH YOU ONLY SO MUCH

Gary Becker misses one major poi in "How the Web is revolutionizing lea ing" (Economic Viewpoint, Dec. 27). Ha ing a degree implies that you have education, but in no way can you get college education online, no matter ho many chat rooms you log on to.

A good college education is obtain by being physically part of a college co munity, interacting face to face with i structors and fellow students in and o of class, working in study groups, doi hands-on laboratory exercises, and bei exposed to many fields outside of yo own major. Furthermore, there are th many personal interactions and cultur events for broadening your educatio Commuter students have most of th same advantages. Granted, it is possib to have super teachers on the Web, an it may be beneficial to take a few cour es from them from a campus locatio but try to talk with them when the may have 1,000 or more students.

Richard A. Hal
Professor Emeritu
University of Main
Orono, Me

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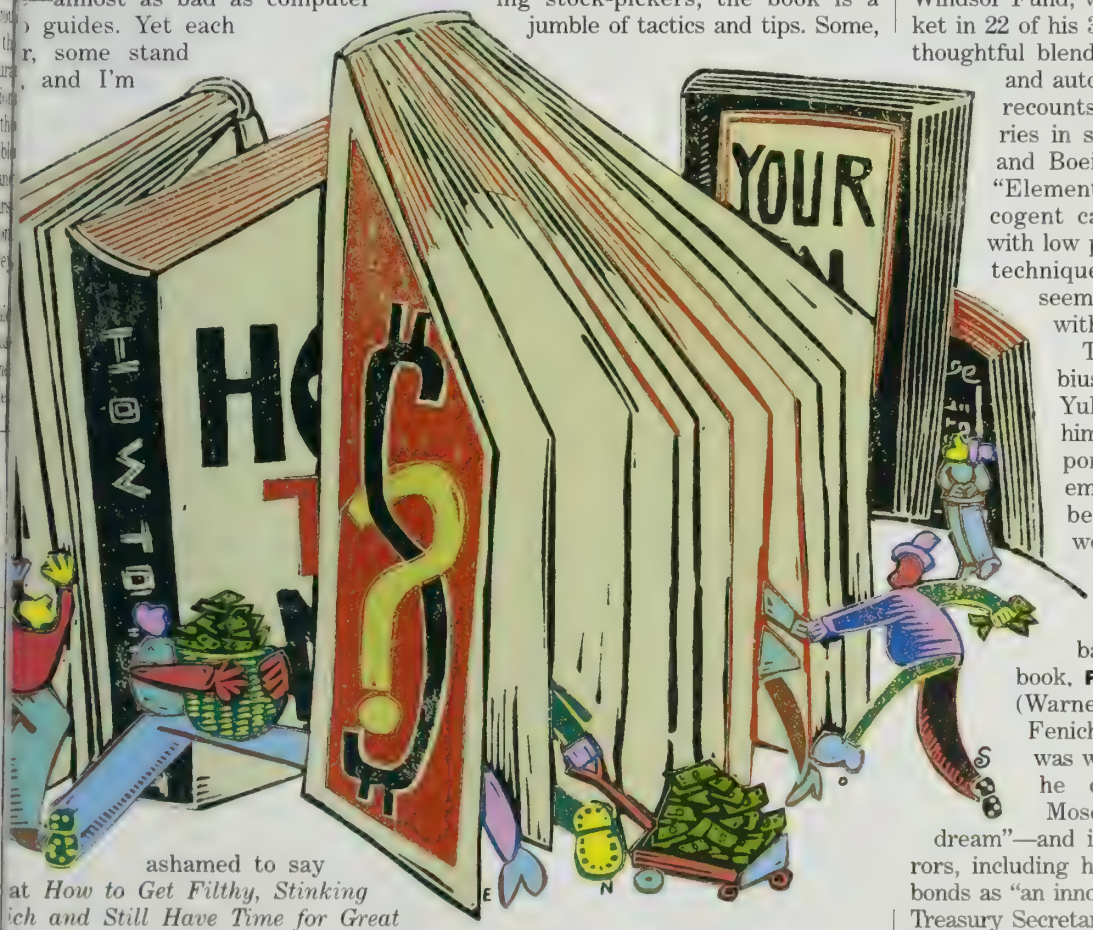
TED BY HARDY GREEN

/HO WANTS TO BE MILLIONAIRE?

urely, I thought, while huddled with my family around the TV one night, there must be a less mortifying to become a millionaire than spend- an hour with Regis Philbin. Ameri- publishing houses must understand despair, because they haven't stinted books with personal-finance advice. clutter in this category is unbeliev- —almost as bad as computer guides. Yet each r, some stand , and I'm ashamed to say at *How to Get Filthy, Stinking ich and Still Have Time for Great x*, due out in May, drew my attention ght off. I moved on, though, after read- g that the author came to the topic a former pet shop owner and life-in- rance agent. *365 Ways to Become a illionaire*, one of those little epigram-a- y jobs, looked promising, too, until I mpled a few. No. 74, "Improve the ality of your handshake," seemed ob- ous, but I'll be darned if I could figure it No. 58: "If you find yourself apologizing often, then you are probably not being spontaneously empathetic." So I dug deeper in the clutter.

Fortunately, not all of the new books are silly, shallow, or "hasty wastes"—my term for the likes of **LESSONS FROM THE FRONT LINE** (Wiley, $29.95) by financial journalist Michael Brush. Based on Brush's interviews with several leading stock-pickers, the book is a jumble of tactics and tips. Some, such as those on initial public offerings, are sound enough. But many other sections, especially an unhelpful one on shareholder activism, seem to be so much stuffing. Worse, I couldn't help wondering how alert Brush was while in those Wall Street trenches when I saw his reference to famed hedge-fund manager "Geoffrey" Vinik—that should be Jeffrey—and the many mentions of growth-stock-picker Gary "Pilgram," who spells his name Pilgrim.



For frontline action and analysis, I prefer **JOHN NEFF ON INVESTING** (Wiley, $27.95, with S. L. Mintz). Neff recalls how he hitchhiked from Toledo to New York in search of his first investment job. He didn't get it, winding up picking stocks for a Cleveland bank. He eventually made his way to the top job at Windsor Fund, where he beat the market in 22 of his 31 years. The book is a thoughtful blend of investment theory and autobiography, in which he recounts big contrarian victories in such stocks as Citicorp and Boeing. The best chapter, "Elements of Style," makes a cogent case for buying stocks with low price-earnings ratios—a technique that, I caution you, seems to have retired along with Neff in 1995.

The record of Mark Mobius, whose TV spots and Yul Brynner dome make him the highest-profile exponent of investing in emerging markets, is still being written. In other words, his Franklin Templeton Group funds have been up, down, and, more recently, back up. I expected his book, **PASSPORT TO PROFITS** (Warner, $25, with Stephen Fenichell), to be a glib ad. I was wrong. Yes, it's breezy—he describes pre-default Moscow as a "yuppie wet dream"—and it makes some odd errors, including his discussion of Brady bonds as "an innovation devised by U.S. Treasury Secretary James Brady," which might amuse former Treasury Secretary Nicholas Brady. Yet it's full of colorful depictions of such spots as a sputtering Russian auto plant desperate for fresh capital to keep making Volga sedans.

Another happy surprise was **MARY FARRELL'S BEYOND THE BASICS** (Simon & Schuster, $25), which is due out in April. Farrell is a PaineWebber investment strategist and familiar face on TV. She doesn't break new ground here, but

There's no shortage of guides to wealth—but don't quit your day job just yet

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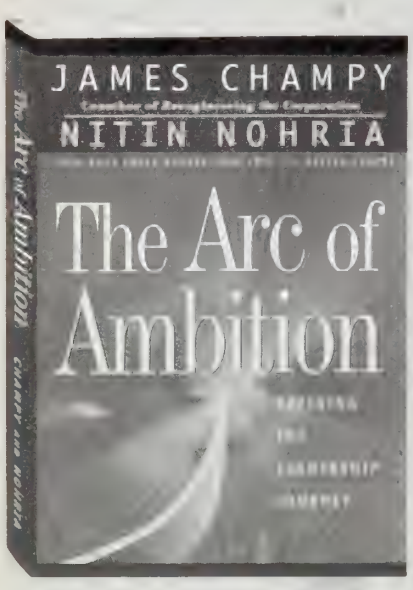

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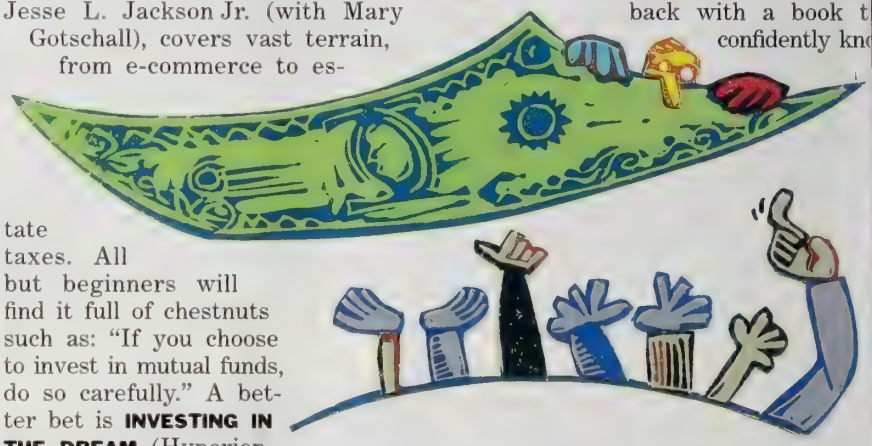
her advice is well grounded and pleasantly delivered. My favorite part: her sharp, yet fair, dissection of how financial media—both print and electronic—sometimes convey investment advice that can be harmful to your wealth.

Farrell's book is tilted toward questions that women investors might have. Two other new books are aimed at African Americans. **IT'S ABOUT THE MONEY!** (Times Business, $23), by civil rights leader Reverend Jesse Jackson and his son, Illinois Representative Jesse L. Jackson Jr. (with Mary Gotschall), covers vast terrain, from e-commerce to estate taxes. All but beginners will find it full of chestnuts such as: "If you choose to invest in mutual funds, do so carefully." A better bet is **INVESTING IN THE DREAM** (Hyperion, $22.95), by Chicago investment adviser Jesse B. Brown. It, too, is basic, but it's forged from Brown's experience, so the advice rings truer. To me, the best recent entry in the advice-to-minorities genre is **THE LATINO GUIDE TO PERSONAL MONEY MANAGEMENT** (Bloomberg, $16.95), by Laura Castaneda and Laura Castellanos. It's broad, if not deep—good for anyone taking first steps toward a strong *cartera de valores* (portfolio).

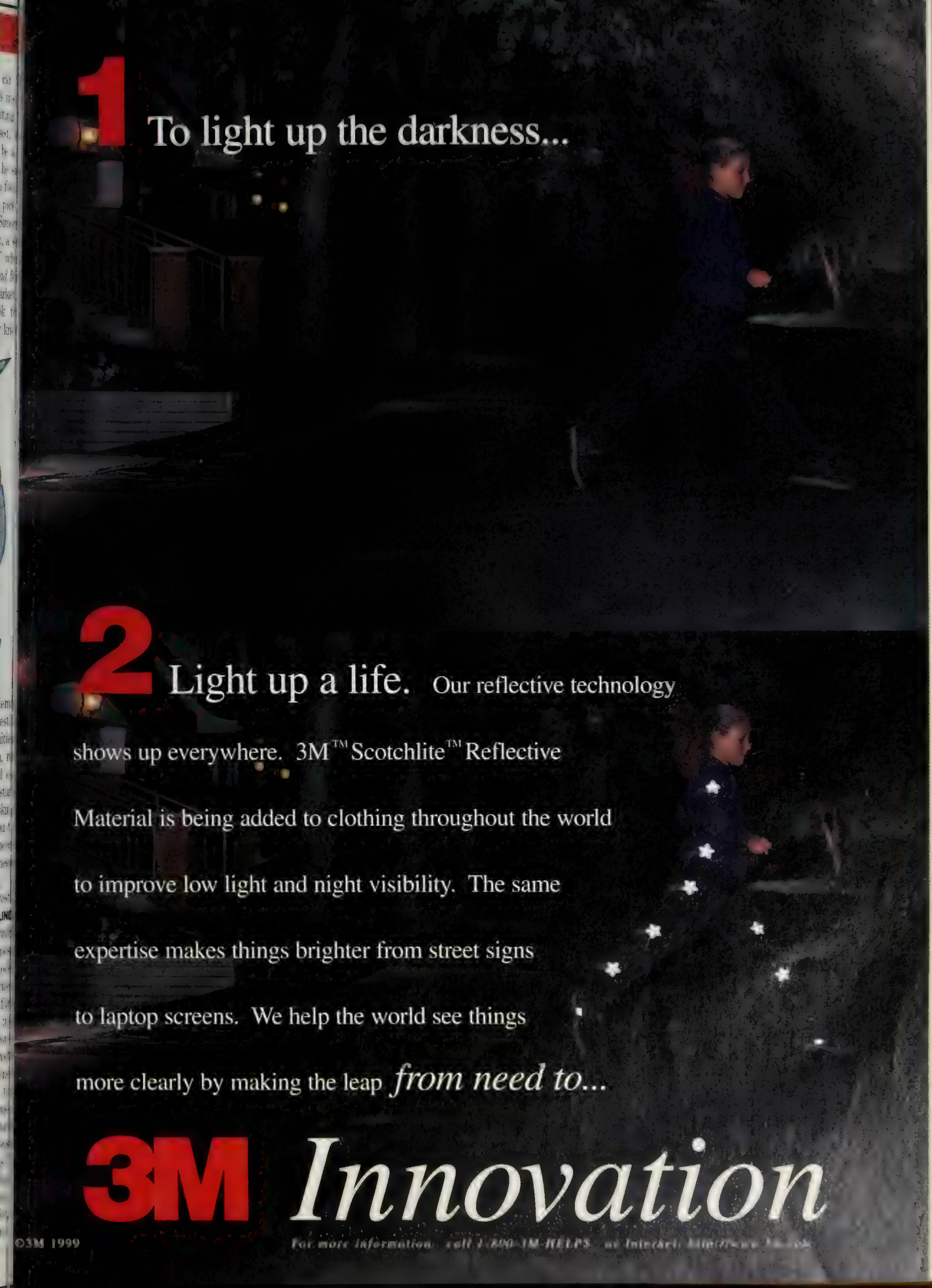


To survive on Wall Street, "you just have to avoid being a fool"

My absolute favorite new investment book should be read by anyone eager to make a million in the market, and its author is no one you've ever heard of. **SUCCESS AND SURVIVAL ON WALL STREET: UNDERSTANDING THE MIND OF THE MARKET** (Rowman & Littlefield, $22.95), by Queens College sociologist Charles W. Smith, is a retread of his 1981 study. By turns dry and wry, social scientist Smith has come up with a taxonomy of the Wall Street species. To the types he classified earlier, including frequent traders and buy-and-hold fundamentalists, he has discovered two new animals: the efficient-markets believers and transformational idea adherents. The latter you'll spot among Internet investors, who reject traditional modes of valuation and who, Smith writes, do not "accept the view that there is a nuts-and-bolts reality out there that determines what will be." How can help you? By taking in Smith's ins that no one has the key to beating market. Most everyone is confused, ried, cynical. "You don't have to be a nius to survive on Wall Street," he s "You just have to avoid being a foo

If that counsel depresses you, pick **THE ROARING 2000s INVESTOR** (Simo Schuster, $25). Harry S. Dent Jr., a s described "economic futurist" wh 1992 *The Great Boom Ahead* f cast our current bull marke back with a book t confidently kn everything. How? By following dem graphic trends. "You as an invest should be focusing on large-cap equiti international equities, and exurban, r sort, and high-end residential real e tate," Dent writes. To this big-think stu he adds some lame tips, such as aski an accountant or lawyer to refer you an investment adviser. But if Dent kno all he says he knows, what do I ne with my CPA's country club buddy?

You'll get a better steer on inves ment advisers in **ROBBING YOU BLIN** (Morrow, $25), by former Merrill Lyn & Co. broker Mark Dempsey. At time he goes overboard, expressing sho that wealthy clients get the best servic That said, Dempsey takes us on a fu tour through the realm of personal i vesting, where fairness is rarely a co cern. "The heart and soul of Wall Stre is selling," he writes. "Not even on hour of my training was devoted t managing money." Dempsey also tran lates "brokerspeak...a language tha justifies the broker's recommendation while camouflaging his real intentions. And he takes issue with journalists wh cover the Street from the outside look ing in. He also scores regulators fo among other sins, not requiring a sum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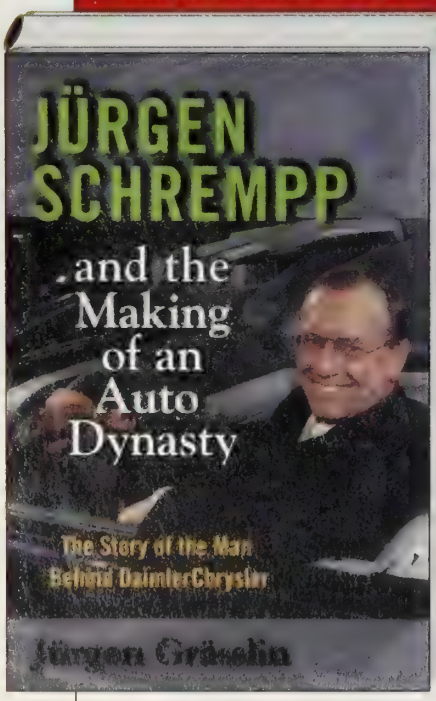
"The boardroom drama inside DaimlerChrysler AG will reach its climax...but when the smoke clears, the spotlight will be on one man: Co-Chairman Jürgen E. Schrempp."

—*The Wall Street Journal*



The best-selling biography, *Jürgen Schrempp and the Making of an Auto Dynasty* is the first book to examine one of the most powerful CEOs in the world—the man behind what the *Wall Street Journal* calls "the biggest industrial merger of all time"—and a new breed of corporate leader with the twenty-first century firmly in his sights.

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Many investors hope never to pick stock on their own. For them, there a mutual funds and, naturally, lots books about funds. Like most fund most of these guides are disappointin A new oddball that anybody with mo than a few bucks in funds should g is **HOW TO READ A MUTUAL FUN PROSPECTUS** (Mercer, $19.95). Ugh, yo say, but this is a well-organized guid by former government lawyers Thoma P. Lemke and Gerald T. Lins, to most what you need to know. Its publisher small and distribution limited, so here where to order: 800 247-6553. **THE SAG GUIDE TO MUTUAL FUNDS** (HarperBus ness, $26) by Alan and Stephen Cohn, a lot zippier. The Cohns are the financi planners behind the popular Sage site a America Online, which is to fund in vestors what Weight Watchers is to di eters—in community is fortitude. Th book is sound, basic, and a bit padded

What I appreciate about the Cohns though, is their unwillingness to equat Internet investing with scoring millions That's not the case with many new books on day-trading stocks, none o which I have a kind word for. Just as avoided dropping acid in my younge years, I'm steering clear of day-trad ing. Seeing *The Complete Idiot's Guid to Day Trading Like a Pro* at Barnes & Noble the other day made me think it' another bad trip I won't regret missing

BY ROBERT BARKER

Barker tracks money and its manias in his column, The Barker Portfolio and at www.businessweek.com.

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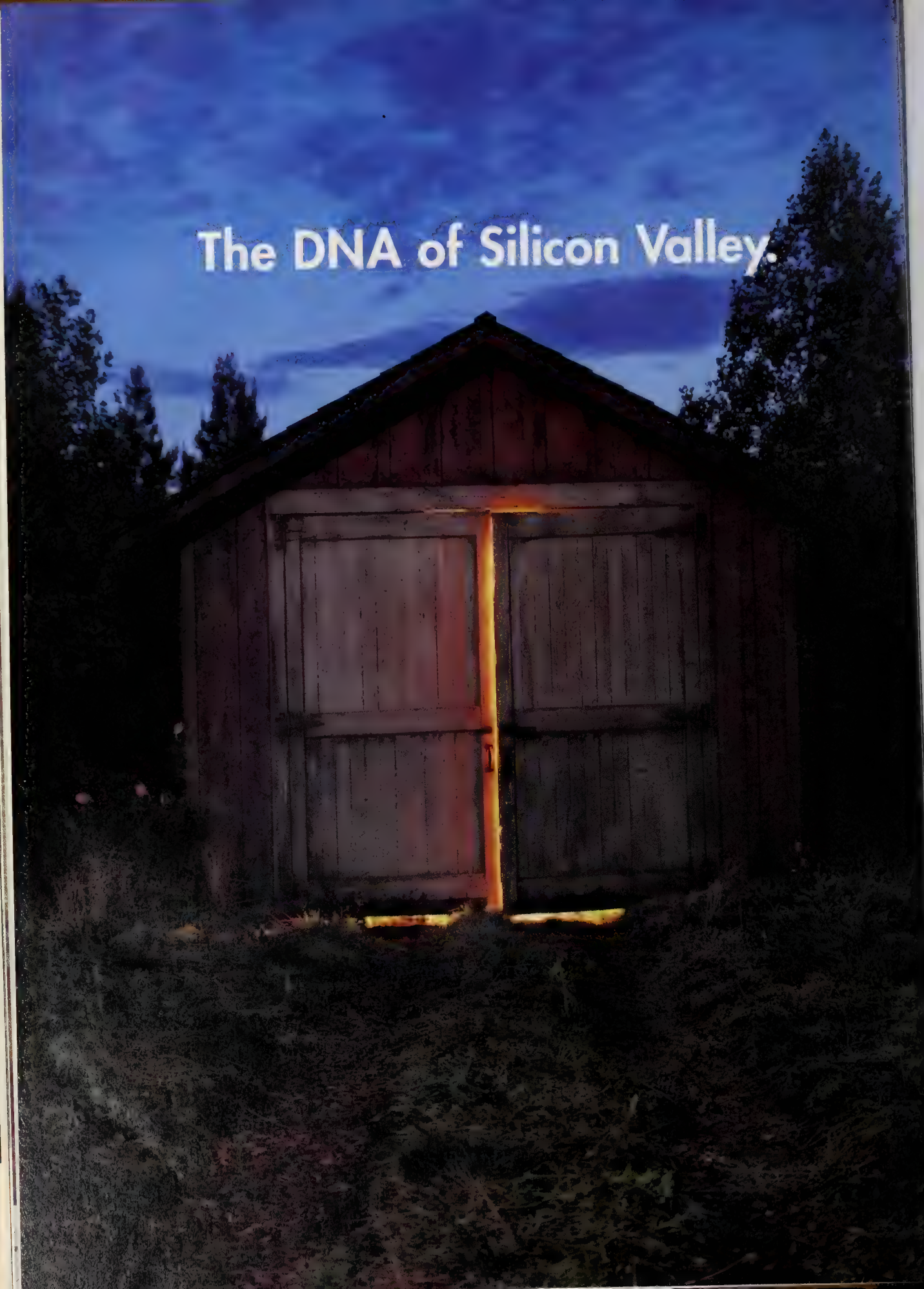
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BY STEPHEN H. WILDSTROM

THE NETWORK COMES HOME

Hooking up your PCs is simpler and cheaper, and they can work together faster

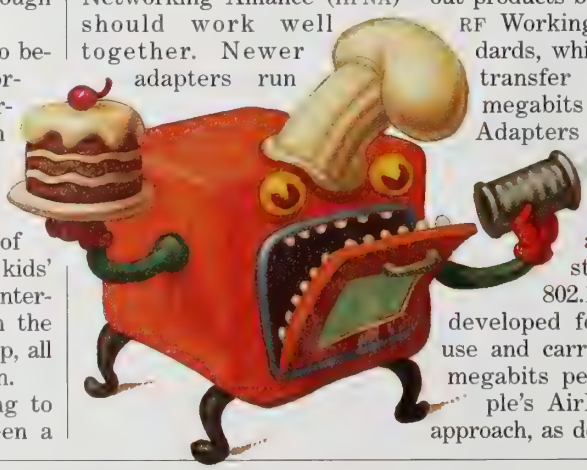
The arithmetic is simple. Sales of new PCs into households that already own at least one computer is the fastest-growing segment of the market. High-speed Internet access in homes, through cable or DSL phone lines, is exploding. Two or more computers plus one Internet connection equals a need to share access through some sort of network.

Networking is going to become increasingly important as a variety of information appliances join computers in the home. You may have a powerful computer in your home office, a couple of no-frills versions in the kids' rooms, and stand-alone Internet browsing devices in the kitchen and the workshop, all sharing a fast connection.

The industry is rising to the occasion. It has been a little more than a year since products appeared that made the sort of networking long used in schools and businesses practical for the home. The second-generation hardware and software now appearing offers faster speeds, lower costs, and simpler setups. While it's still not as easy as I would like it to be, home networking is well within the reach of anyone willing to put in a bit of effort.

The two basic approaches to home networking use existing phone wiring or radio waves to connect computers. Dedicated Ethernet cabling, which can be up to 100 times faster than other methods, only makes sense if a home has already been wired or if you are hooking up two or more computers in the same room and can just string wires.

The first choice for most homes will be plug-in cards or external adapters that send data over the phone lines. All equipment certified by the Home Phoneline Networking Alliance (HPNA) should work well together. Newer adapters run at 10 megabits per second, but the older, less expensive 1 megabit systems are perfectly adequate for most home users. The two types can be mixed on the same network, but the link between any two computers is limited to the speed of the slower one.



Some new PCs are shipping with HPNA hookups installed. You can add a computer to a home network by connecting a phone line to either a card or an HPNA device plugged into a universal serial bus port. Producers of the adapters include Intel, 3Com, Linksys, and Farallon. The cards are cheaper, at about $50 for a 1 megabit version vs. $80 or so for a USB adapter, but USB is a lot simpler. You can also get adapters that attach to a printer port, but they are trouble-prone, and I don't recommend them.

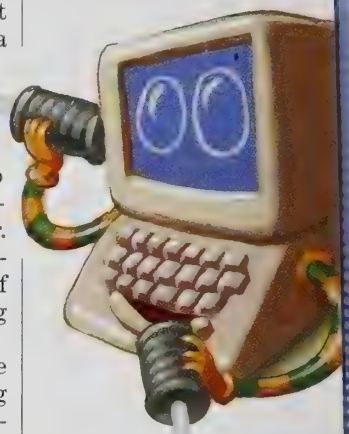
What if you want to put a computer where there's no phone jack? Wireless networking offers an answer. But the picture is a bit confusing, with an assortment of proprietary systems giving way to two standards.

Compaq and Intel are working with Proxim to bring out products based on HomeRF Working Group standards, which allows data transfer at up to 1.6 megabits per second. Adapters are likely to cost about $150 per computer. The alternative is a standard called 802.11b, which was developed for commercial use and carries data at 10 megabits per second. Apple's AirPort uses this approach, as do coming products from 3C

Although Apple is ing AirPort cards $149, expect to more for other mode

One area where there been big improvement i the software needed to up and run a network. crosoft made the Inter Connection Sharing Wiz part of Windows 98 Sec Edition, an $89 upgrade t comes bundled with 3C HPNA products. While m easier than trying to set network software on y own, it's still a bit tricky. have to reboot your comp er, for example, after ev the smallest change in n work configuration.

The software that com with Intel's HomeConne products is easier to u Oddly, for a company th prides itself on ease of u the setup of Apple's $299 A Port Base Station is min numbing. But Farallon Co munications offers HP networking hardware a



software for both Window and Macs.

Home networking is still project for the adventure some, but it is bound to be come more important. Today you can link your computers Soon you'll be adding othe devices. Eventually you ca even add your washer an dryer, your entertainment center, and your security system. But before that happens the networks will have to become easier to use and more reliable.

QUESTIONS? COMMENTS? Send an e-mail to tech&you@businessweek.com

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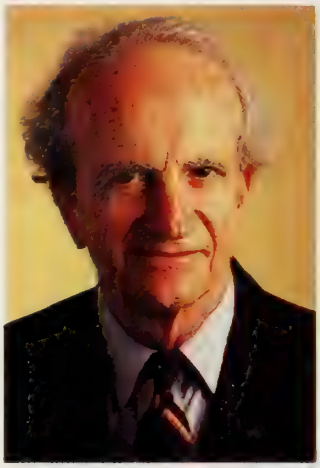
BY GARY S. BECKER

LONGER LIFE WAS THE CENTURY'S GREATEST GIFT



WORLD GAIN: Improvements in mankind's survival into old age were not limited to rich nations or the West. They occurred on every continent

Gary S. Becker, the 1992 Nobel laureate, teaches at the University of Chicago and is a Fellow of the Hoover Institution.

At a New Year's Eve party, I asked our guests to name the major development of the 20th century. They had several excellent candidates, including the rise and fall of communism, the growth of democracy, and the advent of computers. But I believe none benefited the ordinary person more than the extending of life expectancy.

The gains in health care between 1900 and the present have been spectacular. Life expectancy at birth in the Western world grew from a mere 45 years at the beginning of the 20th century to over 75 years at the dawn of the 21st century. More than 100 infants, and about an equal number of mothers, died for every 1,000 live births in 1900. Both the infant mortality rate and deaths of women during childbirth have become rather negligible. The incidence of contagious and other diseases also drastically declined, especially during the second half of the century. Death rates in the U.S. from heart disease are less than half of what they were in 1950, and survivor rates from many forms of cancer have improved during the past two decades.

Just as impressive has been the trend toward much greater equality in terms of longevity. At the start of the past century, many people died at young ages from diphtheria, tuberculosis, influenza, and other infectious diseases, while others survived into old age. Now, almost everyone born in moderately well-off nations lives beyond the age of 60. Moreover, many deaths are no longer caused by forces beyond an individual's control, but instead are due to drunk driving, smoking, alcoholism, drug overdoses, AIDS, suicide, and other factors that can be largely eliminated by changes in behavior.

Although higher-income and better-educated whites in America still live longer than other groups, these differences are much smaller than they were a century ago. The poor and least-educated gained enormously from medical insurance, government-subsidized health care, and the discovery of cheap diagnostic tools for the early treatment of major diseases.

The one major exception is the widening gap between men and women. Women's advantage in life expectancy was negligible in 1900, but during the 20th century rose to about seven years. Women are obviously much less prone to heart attacks and strokes, two major killers of modern times, although the gender difference in death rates due these causes has begun to narrow.

Improvements in survival to old age w not limited to richer or Western countr and occurred on every continent and in all tions. In fact, the decline in mortality ra has been greater in poorer nations. The erage person born in India will live to w over 60 years compared with under 50 ye three decades ago, and only a little over years at the beginning of the 20th centu The typical Mexican in 1930 died before a 40, but now mortality in Mexico is only a tle behind that of rich countries.

YOUNGER OLDSTERS. Falls in the mortality ures deserve to rank among the most sign cant events of the past century because peo highly value even modest declines in dea rates. Economists have estimated what peo are willing to pay for lower death rates various ages (BW—Apr. 19, 1999). Willia Nordhaus of Yale University has turned the estimates of the value to people of improv mortality into units of income, adding them national income figures of the U.S. during t past half century. He finds a huge effect: N tional incomes grew about 2% per year mo rapidly after the adjustments for mortality d clines. Moreover, since mortality fell faster poorer countries, similar calculations for all n tions would show far more narrowing of wor economic inequality during the past centu than is suggested by the usual comparison national income accounts.

Some geriatric specialists expect gains life expectancy to slow appreciably durin the coming decades because deaths are no caused mainly by seemingly intractable di eases of old age. However, the mapping gene structures that is almost completed likely to produce vaccines and gene ther pies that will combat heart disease, cance and stroke, the three chief killers of the e derly. This is why I believe that life ex pectancy, as well as the quality of life at old er ages, will continue to improve rapidl during the next few decades.

The greatest declines in mortality of a time occurred during the past century. Ye this new century is likely to do still better i delaying the onset of diseases of old age Even 75-year-olds may be "youngsters" b the year 2100, and some of you may witnes these changes as members of an alert an active elderly population.

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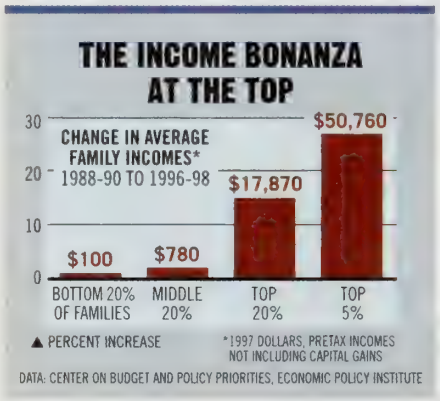
BY GENE KORETZ

NOT ENOUGH IS TRICKLING DOWN

How income gaps rose in the '90s

Tight labor markets and minimum-wage hikes in recent years may well have halted, at least temporarily, the rise in income inequality plaguing the U. S. economy. But as a new analysis of income data makes clear, the long-term trend toward greater income dispersion has hardly been affected.

In the late 1990s, report the Center on Budget & Policy Priorities and the Economic Policy Institute, the average



pretax income of the top 20% of U. S. families was 10.6 times as large as that of the bottom 20% of families. Two decades ago, the multiple was just 7.4. And the average income of the top 5% of families has jumped to 18.3 times that of the bottom 20%, from 11 times as large in the late 1970s.

The 1990s were especially good to the top 20% and top 5% of families. During the decade, their average real incomes before taxes grew by $17,870 and $50,760 (1997 dollars), respectively, while those of the bottom and middle 20% of families edged up by only $100 and $780.

Since these numbers don't include capital gains, upper-income groups undoubtedly made out even better. On the other hand, most low-income families don't pay income taxes and many receive cash supplements via the earned income tax credit. Still, even on an aftertax basis, Congressional Budget Office projections indicate that the income gaps between poor and affluent families rose between 1989 and 1999.

As for individual states, two-thirds saw income gaps rise during the 1990s. Those with the greatest inequality (income ratios of over 11.5 between the top and bottom 20% of families) are New York, Arizona, New Mexico, Louisiana, California, Rhode Island, and Texas. The states with the least inequality (income ratios under 8) are North Dakota, Iowa, Indiana, and Utah.

The report notes that rising income inequality seems to have many causes, including a shift to higher-skill jobs, globalization, immigration, fewer factory jobs, and declining unionization. Like many economists, the authors worry about rising inequality—not only on moral grounds but also because it makes problems like poverty and crime more intractable, and undermines the political base of democratic capitalism.

If the economy slows or falls into recession, income disparities could well worsen again. With surplus revenues at hand, the authors think the states and federal government have a unique opportunity to craft tax changes, minimum-wage hikes, and other measures to keep that from happening.

MEDICAL COSTS OF THE 'OLD OLD'

Better health hasn't cut the tab

A number of studies have shown that older Americans are not only living longer but also doing so with fewer diseases and disabilities. Yet Medicare spending per beneficiary has doubled in real terms in the past two decades. In a new research paper, David M. Cutler and Ellen Meara of Harvard University probe the reasons for this huge, seemingly paradoxical rise in outlays.

The two economists report that recent spending growth has been especially pronounced among the oldest old—those in their eighties and beyond. From 1985 to 1995, real per capita outlays for oldsters over 85 rose by 53%, compared with 22% for those 65 to 69. At the same time, mortality and hospitalization rates declined among the elderly at all age levels, and disability rates fell particularly sharply among the oldest old.

In prior decades, surging medical spending on the oldest old reflected the growing intensity of acute care services they received—mainly inpatient hospital care. But since 1985, the study shows, it has mainly reflected greater use of post-acute care services such as skilled nursing, home health care, and rehabilitation facilities. Between 1985 and 1995, average outlays on such services for people over 85 exploded f just $240 per person (in 1995 dollars nearly $2,000.

Since government rules on the of post-acute services by the eld were substantially eased in the 1980s, part of the rise in such outl was predictable. Some hospitals also have shifted inpatient care to s arate facilities on their premises maximize revenues. More worriso note the authors, is the possibility growing outright fraud by home hea care providers, whose services poorly monitored and who now acco for 13% of Medicare spending.

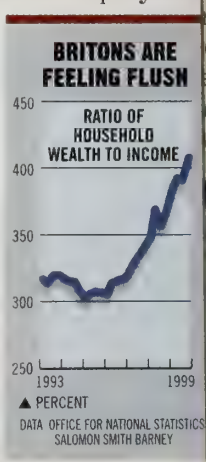
AN ANGLO-SAXON WEALTH EFFECT

British wallets are opening wide

Americans aren't the only ones fe ing a lot richer these days. Eco mist Michael Saunders of Salom Smith Barney in London estimates t real directly held household wealth Britain (excluding life insurance a pension assets) rose 15% last yea and 37% since the end of 1996.

As in the states, the wealth rise h sparked surging consumer spending and less savings. By last year's thi quarter, the household savings rate w down to a 10-year low of 4.5%. Mea while, retailers report their best Chri mas shopping period since 1988.

A major difference between Brita and the U. S. is that it is home pric rather than stock prices that are fueli British wealth gains. Houses accou for far more of directly held wealth Britain, and prices recently have be rising at a 4% quarterly clip. Furthe home prices and mortgage paymen relative to income are still "quite low says Saunders, whereas equity hol ings in the U. S. relative to income appear high.



The upshot, he observes, is that modest increases in interest rates engineered by the monetary authorities to slow wealth and consumption gains are less likely to sharply curtail consumer spending in Britain than in the States.

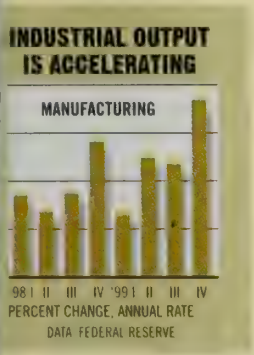
AMES C. COOPER & KATHLEEN MADIGAN

TEERING CLEAR OF THE LIMITS BUT WHERE ARE THEY?

en though inflation is tame, Greenspan won't take any chances

U.S. ECONOMY Was it another 5% quarter? We won't know for sure until Commerce Dept. reports on fourth-quarter gross ıestic product on Jan. 28, but based on preliminary a, economic growth might well have been in that ghborhood. If so, coming after the third quarter's % burst, it would be the economy's strongest two-rter pace in more than a decade.

t's little wonder, then, that Federal Reserve Chair-n Alan Greenspan on Jan. 13 spoke a great deal ut the economy's "limits," specifically the bound-s on growth in overall demand and those on the l of available workers. In a period of such rapid hnological progress, in which productivity is helping stretch those lines, Greenspan said: "Admittedly, are groping to infer where those limits may be. But t there are limits cannot be open to question."



The economy's powerful momentum heading into the new year strongly suggests that the economy is pushing those limits a little too hard for comfort. Recent data show that retail sales in both November and December were red hot, and industrial production last quarter grew at the fastest pace in two years (chart).

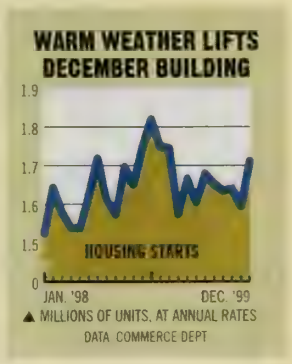
Also, there appears to have en some boost to fourth-quarter growth from Y2K-re-ed effects, after all. November inventories shot up at ree times the pace of previous months, and December tail sales of food and drugs posted exceptionally ge gains. Some slackening in those and any other af-cted areas will depress first-quarter growth to some gree. But outside of diminished housing activity, ere is little to suggest that the underlying strength of erall demand and output is waning.

IAT'S WHY FED WATCHERS are nearly unanimous expecting another quarter-point rate hike at the d's Feb. 1-2 meetings, based on a Jan. 14 survey by andard & Poor's MMS. However, with December price dexes so tame, Greenspan & Co. believe there is lit-urgency to act. But that doesn't mean that a Feb-ary rate hike will be the last, especially if demand ays torrid and labor markets keep tightening.

The latest numbers show no letup in spending, especially by consumers. Retail sales in December rose 1.2%, after a strong 1.1% surge in November. Excluding cars, retail receipts increased 1.4% at yearend, the largest monthly gain in more than 3½ years. The sales gains were broad, although receipts at grocery stores shot up by 2%. They haven't racked up a monthly increase that large in nearly nine years.

The beat continued in January, based on early reports. In the first two weeks of the month, seasonally adjusted sales jumped 1.9% from the December level, says LJR Redbook Research. And the University of Michigan's preliminary reading of consumer sentiment rose to a new record in January.

The only area showing a little fatigue is housing. In December, housing starts jumped 7.1%, to an annual rate of 1.71 million, lifted by unusually warm weather (chart). But the average for the fourth quarter was about even with that of the third and below the level a year earlier. Starts flattened out at the end of 1999 as 30-year mortgage rates rose more than a full percentage point—an offshoot of the bond market's reaction to Fed tightening. But stock market gains and record optimism still buoy demand.



Indeed, homebuilders reported that overall housing-market conditions remained "relatively good" in January. The builders' index dipped to 71 in January, not much of a drop from the 72 averaged in the second half of 1999 and the first half's 74. The index gauges current and expected sales and traffic through model homes.

KEEP IN MIND, THOUGH, that housing's direct influence on economic growth is only one-third of that for exports, which are speeding up amid a global recovery. Stronger foreign demand and unrelenting domestic spending are lifting the U.S. manufacturing sector.

For example, December industrial production rose 0.4%, and for the quarter, output increased at an annual rate of 6.5%, the strongest quarterly advance in two years. Industrial capacity utilization in December rose to 81.3%, the highest in more than a year, although not so high as to raise concerns about production constraints and possible price pressures.

Further gains in output seem likely this year. Strong

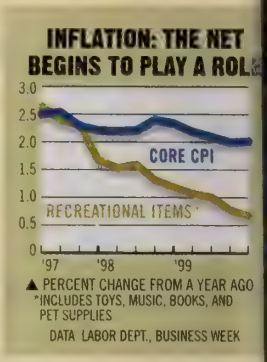
demand last year took inventories down to very low levels relative to sales, and some stock rebuilding will be necessary. Also, unfilled orders outside of aircraft soared to a record level at the end of 1999, suggesting a buildup of future production in the pipeline.

Some of the large 0.9% increase in November business inventories may well have been Y2K-related. The increase was three times the 0.3% monthly gains that were typical in the previous six months, and most of the month's rise was in wholesale and retail trade. Still, the fact that overall business sales in November rose by an even stronger 1.3% suggests that the gain in stockpiles was easily in line with demand. That should mitigate the negative effects on economic growth of any inventory rundown in the first quarter.

AS GREENSPAN NOTED, the economy's limits cannot be accurately defined, but evidence that the U.S. has moved above its potential will show up in price pressures. So far, inflation remains quite low even after four years of rapid growth. And one reason to think that price increases will remain small in 2000 is the growing influence of the Internet on shopping.

Consumer prices rose 0.2% in December, and, excluding food and energy, core prices increased just 0.1%. For all of 1999, consumer prices rose 2.7%. That's much higher than the 1.6% increase in 1998, but most of the runup was caused by higher energy prices. That runup continued into 2000. The price of oil topped $ per barrel on Jan. 19, a nine-year high.

Core inflation, however, slowed in 1999, with prices up 1.9% for the year, compared with 2.4% in 1998. One area that showed much slower price growth was recreational items (chart). That category includes toys, books, music, and pet supplies—items easily procurable on the Internet. As the Net provides more competition to brick-and-mortar stores, more retailers will find it difficult to raise price



At the same time, though, businesses are confronti higher costs. Tight labor markets are exerting upwa pressures on wages, and the cost of materials is b ginning to rise. Although core producer prices for fi ished goods rose only 0.9% in the year ended in D cember, prices for goods further back in the productio process have stopped falling. Core raw materials, fact, have shot up 13.6% in the past year.

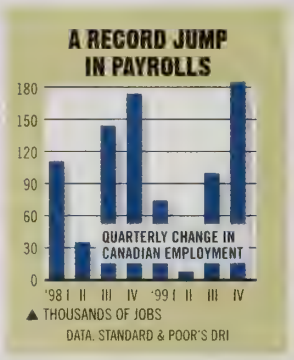
If the Fed wants to curtail these cost pressures, will have to curb demand so that growth slows t within the economy's speed limit. That didn't happen 1999, which only increases the burden on policymake in 2000.

CANADA

WHY INTEREST RATES ARE HEADED NORTH

Spurred by solid labor markets and robust demand, the odds are rising that the Bank of Canada will have to follow its U.S. counterpart, the Federal Reserve, in hiking interest rates in 2000 despite little evidence of higher inflation.

December payrolls rose by 42,000, after three even bigger gains. For the fourth quarter, jobs grew by 182,000—the largest quarterly increase on record (chart). Other signs of tighter labor markets are growing. Almost all of the new jobs in December were full-time positions. The jobless rate remained at an 18-year low of 6.9%. And help-wanted advertising in December jumped 11.6% from a year ago.



Stronger job markets should keep consumer spending growing at a healthy clip. So far, though, exports and capital spending are fueling the gains in Canada's real gross domestic product. The data on industrial production, housing, and retail trade suggest that real GDP grew 5% in the fourth quarter, after a 4.7% surge in the third quarter. Inventory accumulation, the result of both Y2K concerns and the usual precautionary winter stockpiling, likely added to output at yearend.

For 2000, Canada's economy is projected to grow by about 3%. Not only should consumers pace growth, but rising commodity prices and faster overall world demand should improve prospects for the resource-dependent western provinces.

Despite a bright growth outlook, inflation should remain low. Tighter labor markets are beginning to push up hourly pay raises. But yearly wage growth is still a bit below the overall 2.2% inflation rate, which is well within the BOC's target range.

Nonetheless, the BOC will likely have to hike rates this year in order to keep Canadian financial assets competitive with those of the U.S. The Canadian dollar fell slightly against the U.S. dollar early in 2000 when investors worried that the BOC would not match Fed tightening. However, the latest data suggest that the Canadian economy carried enough momentum into 2000 that it can weather some policy tightening.

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One lesson of the AOL Time Warner deal: Profits matter after all

First came the explosion. After America Online Inc. and Time Warner Inc. announced plans to merge on Jan. 10, their combined market capitalization plunged by $10 billion in three days. AOL shareholders howled that they would be saddled with a slow-growing old media company, while Time Warner stalwarts questioned the value of shares in a brazen young company that not so long ago was derided as America Offline. The collision of Internet believers and skeptics was a little like the interaction of matter and antimatter: blammo.

But as the smoke clears, it's becoming apparent that the combination of online and offline companies makes perfect sense in terms of strategy—and may be just as smart on Wall Street, too. Bricks-and-mortar retailers need the reach of the Internet, while their online counterparts need showrooms where people can finger a pashmina shawl or settle into the bucket seat of a new sports car. America Online wants film libraries and high-speed connections via cable, while Time Warner covets the eyeballs of AOL's 20 million subscribers.

This scenario may not be as exciting as the story of an Internet startup with no revenue, heavy losses, and an initial public offering that produces billions overnight. But it could play longer. No, Net IPOS are not going away, and Net stock valuations are not going to fall in line with those of General Motors Corp. and General Electric Co. But, as the AOL/Time Warner deal makes clear, the way the markets will value companies will change as the Internet economy blends with the Old Economy. Profitless upstarts may not get such a break, and bricks-and-mortar companies that are investing in New Economy assets may be rewarded.

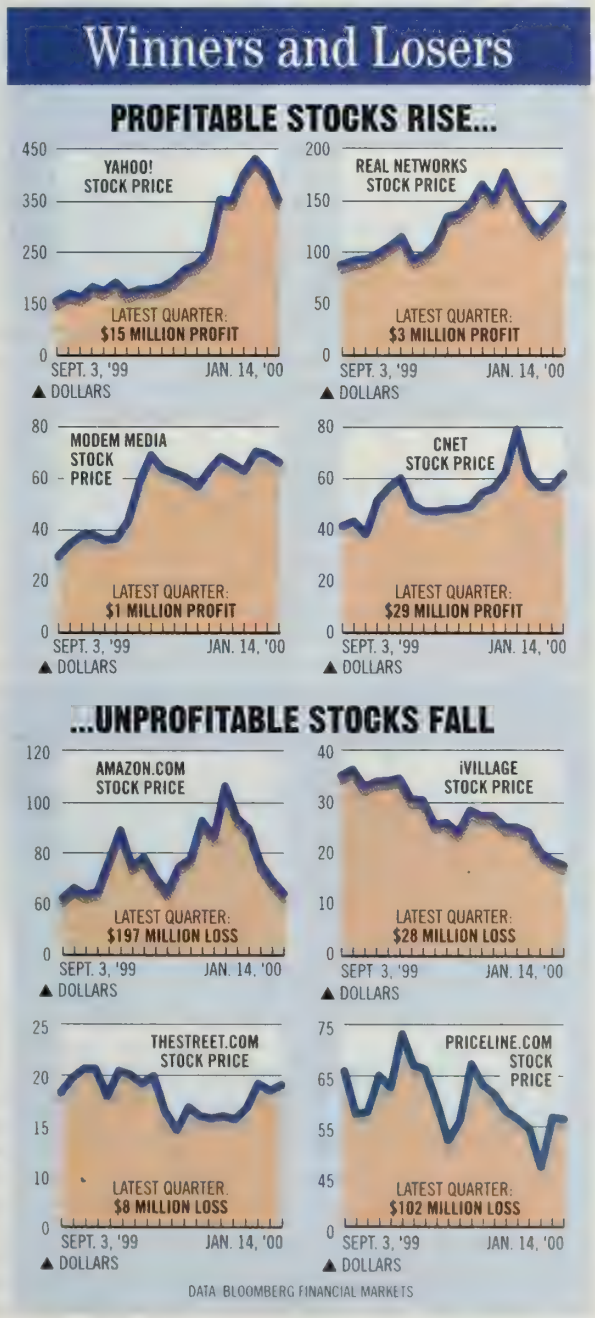
IET EQUATION

ome Wall Street pros are saying that big story in the market this year ld be more deals like the AOL-Time rner combo. "This will be a ground-aking year in terms of bricks-and-rtar companies forging relationships a variety of capital structures h online companies," says James Breyer, managing partner at el Partners, a Palo Alto (Calif.) ture-capital firm. But the payoff stock value will come only for se that can make this blending ceed. Says Breyer: "Only the t companies will operate very ectively at the intersection of of-e and online."

EAKING RANKS. AOL Chairman ephen M. Case, by seizing this portunity first, is the master of e new game. He snagged Time rner at a time when AOL's ares were not far off their his-ric highs, easily paying a 71% emium for Time Warner shares. e next online rival who follows in ase's footsteps will most likely ve to pay an even bigger pre-um. For Case, jumping early ade a lot of sense. "AOL broke nks," says Evan I. Schwartz, au-or of a new book called *Digital arwinism* and a former BUSINESS EK software editor. "They dis-guished themselves and put their mpetitors at risk."

The other lesson of the AOL-Time arner merger is that profits mat-r. One reason AOL was able to e its shares as currency to ac-ire the world's largest media con-omerate is that it has real net come. On Jan. 19, it announced at earnings for its December arter more than doubled from a ar earlier, to $271 million. Black k, a rarity for Internet compa-es, is so precious to investors that ey gave AOL a pre-deal market pitalization of $173 billion, vs. just 7 billion for much larger Time Warner. That enabled AOL to bar-ain for 55% of the combined com-any. The net income also meant a t to Time Warner Chairman Ger-ald Levin. He has said AOL was the only Internet company with which he would have considered merging.

That's a real reversal in thinking. Even in late 1999, it seemed big losses signaled big ambitions and profits were for wimps. "He who hesitates gets smoked. There's almost no incentive to be conservative," J. William Gurley, a partner at Benchmark Capital, lectured investors at a conference last September in Santa Fe, sponsored by Credit Suisse First Boston. Joy D. Covey, chief strategy officer of Amazon.com Inc., bragged to the Santa Fe crowd that the company could get away with years of losses because investors believed in its vision.



Covey may want to change that tune in 2000. Amazon shares dropped precipitously from a record of around $106 in early December to $66 a share on Jan. 19 on news that the company's losses weren't shrinking despite soaring revenue.

What changed? The Christmas selling season, for one thing. Investors lost their stomach for consumer-oriented Web sites that spent so much on advertising, promotion, and price-cutting that they lost huge amounts on every sale. Investors have also lost faith in Web media companies such as women's site iVillage Inc. that haven't figured out how to "monetize eyeballs"—that is, make money from the people looking at their pages.

Other Net stocks that have felt the swing: priceline.com Inc., a name-your-own-price Web site; E*Trade Group Inc., an online broker that was making money but started losing it after embarking on a costly advertising campaign.

MISSED MILEPOSTS. As investors search for value, most at risk are the companies with stock prices based primarily on a persuasive story. By convincing investors that a vision of market dominance is reasonable, a persuasive executive like priceline.com's Chairman Jay Walker can raise the money to make that dream come true. But if a company misses its mileposts and investors start to doubt the premise, the stock will slip. On Jan. 19, priceline.com was

It's becoming apparent that the combination of online and offline companies makes perfect sense in terms of strategy. Each has things that the other needs

down 62% since its peak in April. The reason: slow improvements in its gross-profit margins.

Many disillusioned investors are casting around for somewhere else to put their money. Some are flocking to highly profitable tech companies like Microsoft Corp. and Cisco Systems Inc. Others are investing in small- and mid-cap Internet companies that are trading at more reasonable valuations than large-cap issues. Since the beginning of October, the Russell 2000, a small-cap stock index, has gained 22%—outpacing both the Dow Jones industrial average and the Standard & Poor's 500-stock index. "You've got a return to fundamentals, where there are parameters that finally start to make sense," says Laszlo Birinyi Jr., who runs his own research firm and serves as global strategist at Deutsche Bank Securities Inc. "It's the death of Internet 'unvaluations,'" he says.

CONVERGENCE AHEAD. Investors who still want Internet stocks with big promise are moving into new areas, including business-to-business companies and makers of optical technology. Many of the hot new B2B stocks, such as Chemdex Corp., an online marketplace for life sciences, have been formed only in the last three to six months, notes Greg A. Kyle, president of Pegasus Research International LLC, a New York Internet research firm. But they are raising hundreds of millions in IPOS and seeing their shares soar. "Some of those companies could run up 1,000% before a shakeout occurs," he says.

The most interesting play may be a bet on the coming convergence of online and offline. Some of the best performers lately are non-Net companies that are beginning to take on a Net persona, such as Charles Schwab Corp. Despite its origins as a conventional discount broker, Schwab has become the largest online broker, and its stock reflects that. On Jan. 13, Schwab agreed to acquire white-shoe asset management firm U. S. Trust Corp. In another twist, offline companies that are seen as potential takeover targets by online companies are seeing their shares rise. The day the AOL-Time Warner deal was announced, the stock of Walt Disney Co. jumped 16% on takeover talk.

As many older companies purchase or partner with Internet companies, their stocks should benefit. Wal-Mart Stores Inc. fell short in its homegrown Web efforts, but it's trying e-tailing again in a partnership with Accel Partners, which specializes in Internet properties. Wal-Mart's shareholders will own a majority of the venture, so they'll get most of any profits. Accel's Breyer, who will sit on the venture's board, says it will be located in Silicon Valley rather than Wal-Mart's hometown of Bentonville, Ark.—a signal that the giant retailer is deadly serious this time around. "The Old Economy is waking up. You ca think that the older economy simply going to cede their bu ness to upstarts," says Pa Cook, manager of t Munder NetNet Fund.

As the firewor surrounding t AOL-Time Warn deal demonstrat combinations of o line and offli companies can extremely difficu to carry off. F one thing, i vestors in fas growing comp nies cou continue t frown on th meldings. La year, the stock of L cos Inc. fell so precip tously after it announce plans to buy old-media com pany USA Networks Inc. tha the deal was ultimately scrappe And investors who believe u start Net companies can change th world have good reason to view th May-December pairings of old-line an Net companies with skepticism. A re cent study by Sanford C. Bernstein Co., a New York investment bank showed that mergers represent th worst use of funds—with merged com panies underperforming the S&P 500 b 15% after three years. More impor tantly, according to the study, larg stock-merger deals by growth compa nies fare the worst because the degre of overpayment tends to b much larger. "The strategi impact of these deals may b ultimately positive. But a least short-term, the financia and valuation impact of th acquiring company will tak a hit," says Munder's Cook.

Despite the risks, online offline deals are sure to mul tiply in the coming months Says Cook: "When we started the NetNet Fund three years ago, we said the total landscape will soon be the New Economy. Old Economy businesses would have to get there one way or another The message to Old Economy companies: Buy it, build it, or be replaced by it." Prepare for more explosions.

By Marcia Vickers and Peter Coy in New York

Why Stock Market Valuations Are Changing

- More leading New Economy Internet companies will merge or strike deals with Old Economy bricks-and-mortar businesses in many sectors
- The stocks of many Old Economy companies should strengthen over time as mergers are announced and Net stocks lose some sparkle
- Investors will become more picky about which tech stocks to own, and companies with proven earnings will take top billing over established Net companies that can't turn eyeballs into profits
- Long-term, companies like the combined AOL-Time Warner should post strong stock performances
- A result of the changing valuations is a stronger, broader, and less volatile market

GOLLY GENOME

Both companies are well-equipped to exploit opportunities in gene sequencing

ALS

URYING THE HATCHET UYS A LOT OF DRUG RESEARCH

axo SmithKline may prompt other megamergers

's a deal that had been brewing for wo years—and which many industry nsiders had expected for months. w the world's largest drug company rger—the $174 billion combination Britain's Glaxo Wellcome and Smithne Beecham is all but a done deal. Despite all the anticipation, it's still iking the global drug industry. First, re's the sheer size: The combined comy will have $25 billion in total revue, making it the biggest drug compa in the world. Together, Glaxo ithKline will have 107,000 employees ound the world and an unrivaled rearch and development budget of $4 lion. That, says Jean-Pierre Garnier, e SmithKline Chief Operating Officer o will be chief executive of the comed company, will keep it at the cutting ge of new drug discovery, particularly otech products. "Dollar for dollar we ve the opportunity to discover more ugs than any of our competitors," says arnier. And Glaxo SmithKline will emoy the biggest pharmaceutical sales d marketing team in the world—40,000 rong—to sell them. Finally, it will have e financial resources to pursue more als. Glaxo chief Sir Richard Sykes hint that the new company is already lookg for targets.

True, the industry has been consoliating for years. But now, no deal is possible—and the pressure is building on loners such as Merck to get in the deal game. Even as Glaxo and SmithKline announced their deal, the takeover of Warner-Lambert Co. took a new twist. Days after Warner-Lambert agreed to negotiate with hostile bidder Pfizer Inc., news came of a possible deal with Procter & Gamble Co. A source close to Warner confirms it is talking about a three-way matchup with American Home Products Corp. and P&G. Others say Bristol-Myers Squibb Co. and Eli Lilly & Co. make a good team. And don't forget DuPont and Johnson & Johnson, which may also be snooping around.

Who will be left standing when the deals are done? Glaxo SmithKline would create a British giant; the two Swiss biggies, Novartis and Roche Holding Ltd., are likely partners. As the deals reach jumbo proportions, Hemant Shah, an independent drug-industry analyst, foresees perhaps four U.S. drug companies surviving along with a German entity.

And Merck & Co.? The former No.1 will see its U.S. patents expire on several big products in the next few years, including the patent on the moneyspinner hypertension drug, Vasotec, which has $2.3 billion in annual sales. Though Merck CEO Raymond V. Gilmartin has maintained Merck doesn't need anyone, industry insiders say the Glaxo SmithKline combo changes that. "This does force Merck to rethink their position," says Stephen S. Tang, national director of consulting firm A.T. Kearney Inc.'s health-care industry practice.

10,000 TARGETS. The rush to consolidate—and amass huge research and financial resources—is tied to the great strides scientists have made in unraveling the human genome. These genetic discoveries have yielded more than 10,000 viable biological targets around which to develop new medicines. But it will take billions to turn them into drugs. Says Lehman Brothers analyst Stewart Adkins: "There is a land grab taking place in genomics."

The biotech opportunity is what convinced Sykes and his onetime rival, SmithKline Beecham chief Jan Leschly, to forget the enmity left over from their failed merger try in 1998. Tadataka Yamada, newly appointed chairman for research and development at Glaxo SmithKline, figures the new company can readily foot the bill for the expensive clinical trials needed to exploit the countless opportunities emerging from gene sequencing. "Both companies are also leaders in bioinformatics," which uses advanced computer programs to find similarities among gene sequences, Yamada notes.

That tech edge is vital in speeding up the arrival of the genome-based drugs the company so badly wants. Now the two sides have to prove they can make this megamerger work.

By Kerry Capell with Heidi Dawley in London and Amy Barrett in Philadelphia

A BIG PILL TO SWALLOW

The pharmaceutical industry's top ten companies, if Glaxo and SmithKline complete their merger

COMPANY	YEAR 2000 PHARMACEUTICAL SALES* BILLIONS
GLAXO SMITHKLINE	$23.3
MERCK	20.0
PFIZER	16.9
BRISTOL-MYERS SQUIBB	16.5
ASTRAZENECA	16.4
AVENTIS	14.6
NOVARTIS	11.7
HOFFMANN-LA ROCHE	11.2
ELI LILLY	10.2
WARNER-LAMBERT	9.4

*Estimated
Excludes animal health

DATA: SG COWEN MEHTA PARTNERS

Q&A

A CHAT WITH THE NEW GUY IN PRODUCT DEVELOPMENT

After 25 years as CEO, Bill Gates takes on a fresh assignment

Can Bill Gates really give up the thrill of plotting strategy in the corner office and find true happiness as chief software architect back in Microsoft Corp.'s technology lab? After a surprise announcement on Jan. 13 that he will hand over the CEO job to Steve Ballmer and supervise development of Windows for the Web operating systems, the 44-year-old entrepreneur chatted with Seattle correspondent Jay Greene.

Q: *Is it easy to give up being the final decision maker?*
A: If this was some outsider coming in, I'm sure there would be some concern on my part. Since it's Steve, I have no concern. Steve and I have gone through some of the great challenges, great successes, great failures. I do think that my being able to go home at night and mostly worry about product strategy and not quite as much about profit-and-loss statements and organizational issues is going to be great for me and the company.

Q: *Turning over the CEO duties is giving up something that's defined your business life for 25 years.*
A: That's true, and you know, 25 years is a long time. I feel good about what I did, and I feel good that I have somebody of Steve's strength to turn it over to. I would say that the company faces more challenges in the years ahead than in any of the years I ran the company.

Q: *By stepping down as CEO, do you feel you'll be less of a personal target for the Justice Dept. and competitors?*
A: It's not as though I'm going to be an invisible person. Steve's visibility will go up. But as we talk about that lawsuit, I will be very involved in that. The irony [is] having the most intense competition—the most new startups and high-valuation competitors that we've ever had—and at the same time having someone say that we're a monopoly. If you weren't so close to it, you'd know to laugh.

Q: *You seemed very at ease when you made the announcement.*
A: I'm very happy about it, and it's a great thing. It's also a tiny bit of a milestone to look back over the last 25 years and see how much fun it has been, how lucky I've been, the impact the company has had on this country, the success. When Paul Allen and I were talking about it this week, [we talked] about our original dreams goals and aspirations and how muc has been a complete fulfillment of dreams we had.

Q: *How much time had you alre been spending on product developme*
A: The goal that I've always had is spend more than half my time on pr uct-related things. That had fallen pr ably below 40%, and a small amo makes a big difference.

Q: *So how much of your time will spent on development in your new ro*
A: It's certainly over 75%. It even fluences the speeches I will give o side. Almost all the speeches outs now will be about the new platfor What I talk to the board about will coming out of that role. When I go see partners, it'll be the one that co affect the software strategy.

Q: *What types of things will drop your schedule?*
A: The amount of speaking will down. The amount of international tra el will drop. I'll still go to Asia and s the key partners there and still go Europe once a year. But the agend that I have there will be a fair bit d ferent. I'll be in a lot less business r views. I'll be in a lot less marketing r views. I'll spend a lot more tin with the people in the produ groups, talking.

Q: *Is there anything wro with the pace of innov tion at Microsoft that r quires you to make th move?*
A: When we look bac on Windows 2000, we' incredibly proud of i reliability and the fe tures. We wish we had in the marketplace a yea earlier. Some of the u certainty up front abou what was in the produc what was not in it—thos are things that I thin we could save time b doing better nex round.

NO COASTING

"The company faces more challenges in the years ahead than in the years I ran the company"

COMMENTARY

By Steve Hamm

MULTIPLE MICROSOFTS MAY BE BETTER THAN ONE

Until Nov. 10, Expedia.com, the No. 1 travel site on the Internet, was a little gem hidden inside prawling Microsoft Corp. But then ne site was spun off in an initial pub- c offering that jumped 280% on the rst day of trading to produce a mar- et cap of $2 billion. The IPO also reed the 200 employees of Expedia nc. to be as entrepreneurial as they vant—they don't have to ask ermission to seek new lliances, expand nternationally, r boost he marketing budget. "We've been driving this Ferrari in the suburbs. Now we're taking it out on the highway and seeing what it can do," says Expedia Chief Executive Richard N. Barton.

Is there a lesson in Expedia for the rest of Microsoft? The company has said it will fight breakup—whether imposed or negotiated—as a way to end its federal antitrust suit. But Expedia's declaration of independence raises a legitimate question: Would a breakup really be such a bad thing for the software giant and its shareholders? In fact, there's some evidence to suggest that if Microsoft were broken up along product lines, it might produce an explosion of innovation, new business activity, and new wealth for investors.

This idea has gained currency since Judge Thomas Penfield Jackson handed down his harsh findings of fact last November, signalling the likelihood of a tough "remedy" by the Feds. International Data Corp., for instance, recently issued a 10-page report suggesting that Microsoft should consider a pre-emptive voluntary breakup—and draw its own dividing lines. "If you break them off you let the free market work, and the best technology wins," says Daniel M. Kusnetzky, program director for IDC's operating systems group.

He argues that if Microsoft were to free up its divisions, they'd be able to exploit sizable new business opportunities. For example, the company's Office group might create versions of its word processing and spreadsheet software that could run on the Linux operating system—which is now used by 15 million people worldwide, growing at 25% per year, and avoided at all costs by the current Microsoft.

Also, there are ample precedents to support the argument that the new companies would prosper. The companies created out of the old Bell System monopoly, including those since swallowed up, are worth about $800 billion today, vs. $59 billion before the 1982 court-sanctioned divestiture. Lucent Technologies, which was spun off by AT&T in a $17 billion IPO in 1996, now has a market cap of about $158 billion—and that's even after the stock's 40% drop on news of lower than anticipated earnings.

So far most Wall Street firms have steered clear of placing a breakup value on Microsoft. But Credit Suisse First Boston did some basic calculations and concluded that, at least initially, the parts would be worth more than the whole. Its reasoning: Right now, Microsoft's Internet media properties are a drag on earnings since they're not profitable. If Microsoft were to separate the newer Internet stuff from operating systems and applications, the core businesses—each with more than $8 billion in annual sales and a monopoly of its own—would deliver higher earnings multiples. In addition, Microsoft Network might be compared to Web portal Yahoo! and valued at anywhere from $30 to $50 billion. "The whole thing would be worth more," says analyst Michael Kwatinetz.

Not that Kwatinetz favors a breakup. He and other Wall Streeters believe that could be immensely disruptive. Plus, they reckon a strong Microsoft might come in handy to counter the new might of the America Online-Time Warner combination.

That may be true, but there's also something to be said for the notion of focused, nimble competitors being able to run rings around slower-moving giants. Ask a Microsoft exec. Assessing the AOL-Time Warner deal, Yusuf Mehdi, director of marketing for MSN, recently noted: "AOL has always been nimble and quick. I don't know if they're going to be the same kind of company now."

Creating a handful of feisty independent businesses could certainly fire up morale at Microsoft. Dozens of top managers have left in the past two years to take on the challenge—and potentially enormous rewards—of Net startups. There was certainly no reluctance by employees of Expedia to trade in their Microsoft stock: 96% made the switch. That rousing response speaks volumes about the pent-up energies inside Microsoft waiting to be set free.

Hamm is BUSINESS WEEK's software editor.

paint job.

How to paint a fence:

Go to the hardware store.

Buy white latex paint, a good brush and tray.

With a cold soft drink in hand, paint.

fig. 1

snow job.

How to paint a fence:

fig. 1

Hire a color consultant or decorator.

fig. 2

Pick at least 100 different designer shades of white.

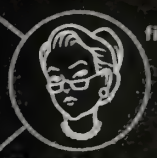


fig. 3

Do a focus group with neighbors.

fig. 4

Decide on at least two colors and mix them together.

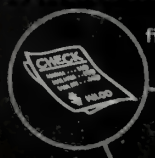


fig. 5

Meet with team of fence specialists at fashionable restaurant.

fig. 6

Choose to use only pony hair paintbrushes from Brazil.

fig. 7

They agree to paint the fence.
NEXT SPRING.

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FINANCE

CAN SCHWAB HANG ON TO ITS HEAVY HITTERS?

Buying U. S. Trust is a gambit to keep them in the fold

They say a rising tide lifts all boats. Now, nine years into the longest economic expansion in the nation's history, it also seems clear that, over time, it can turn some rowboats into yachts. Thanks to a long-lasting bull market, more than 3.3 million households have more than $1 million in investable assets. And—thanks in part to baby boomers coming into their inheritances—that figure is expected to increase by about 15% this year.

So hundreds of thousands of folks who started out as average middle-class investors have turned into high-net-worth individuals—with an appetite for the kind of estate planning, tax planning, and other services that the wealthy have traditionally gotten from private banking and trust departments. To get them, these newly loaded investors have been moving their money out of their usual brokerage accounts and into private banks—an outflow that has reached $5 billion a year in assets from Charles Schwab & Co., says its president, David S. Pottruck.

On Jan. 13, Pottruck put his finger in the dike by agreeing to buy U.S. Trust Corp.—a 147-year-old asset-management firm that caters to the very wealthy—for $2.7 billion. "We were losing money to trust companies," says Pottruck. Now, U.S. Trust, whose average account is $7 million, will allow Schwab to hold on to its newly wealthy customers. "Do-it-yourself clients won't have to 'graduate' to a full-service broker when their portfolio gets so large that they're nervous about running it themselves," says Cerulli Associates Inc. consultant Dennis Gallant.

Acquiring U.S. Trust is certainly a new twist for Schwab, which brought millions of middle-class investors in the market. Pottruck makes clear th Schwab isn't abandoning its bread-an butter clients, who on average have i vestable assets of $180,000, half in Schwab account. "We're still a populi firm," he says.

But Schwab has about 175,000 cu tomers—out of 6.6 million accounts with investable assets of more tha $1 million, and about 25,000 with asse of more than $5 million. That reflec the massive wealth minted by the bu market and the generational shift wealth to baby boomers from their pa ents. Plus Americans are keeping a larg er share of their wealth on Wall Stree 40.6% of family assets were bank a counts, bonds, stocks, mutual funds, etc up from 36.6% in 1995, according to Federal Reserve survey released Jan. 1 (page 47). Almost one-fifth of families—record 19.2%—own stocks directly.

MORE MERGERS. Schwab isn't the onl firm trying to keep the newly rich an the average investor under the sam roof. The latest deal is also part of th convergence of financial services, as oth er big banks and brokerages positio themselves to offer both full-service ad vice and money management alongsid online investing.

Bank and online broker Wachovi Corp., for instance, recently acquire Offitbank Holdings Inc., a trust com pany. And Merrill Lynch & Co. execu tives have spoken publicly about ac quiring a trust to boost the company' existing services to the wealthy. Mean while, it has started to offer business owners "valuation services," to better help them figure out how much thei business would fetch. Even Teachers Insurance & Annuity Association-College Retirement Equities Fund has since 1998 expanded its offerings to include trust services and estate planning, to cater to the 32,000 millionaires among its two million clients.

Congress' recent dismantling of the Glass-Steagall Act, which since the Depression had kept brokerage and banking businesses separate, could unleash a wave of deals similar to Schwab's. If that happens, Pottruck could lose some of the wind from his sails.

By Louise Lee in San Mateo, with Mike McNamee in Washington

You Take the High Road...

How Schwab and U.S. Trust stack up

CHARLES SCHWAB		U.S. TRUST
$725 billion	ASSETS UNDER MANAGEMENT	$86 billion*
6.6 million	NUMBER OF ACCOUNTS	9,000
$90,000	SIZE OF AVERAGE ACCOUNT	$7 million
$400,000	AVERAGE CUSTOMER NET WORTH	Not available
$180,000	AVERAGE CUSTOMER INVESTABLE ASSETS	Not available
1999 REVENUE $3.9 billion		1999 REVENUE THROUGH SEPT. 30 $395 million**

*AS OF DEC. 31, 1999 **AS OF SEPT. 30, 1999 DATA: COMPANY REPORTS

.L GET RICHER– (CEPT THE POOR

ew survey shows that U.S. ısehold assets are soaring

ou might think that news of an even fatter budget surplus would have citizens—and politicians—cry-out for a tax cut. But as word ad that the Congressional Budget ce raised its estimate to a cumula- $2 trillion by 2010, there was nary eep. Why? Maybe Americans are too y counting their money. A Federal serve survey released on Jan. 18 nd that the median net worth of S. families had recently jumped near- 8%—from $60,900 in 1995 to $71,600 1998, the survey's latest year. Net th includes assets such as stocks equity in a home minus liabilities mortgages and other debt.

Behind the wealth surge: a rip- ring stock market that ought benefits to a wide ath of Americans. The in- th survey of 4,000 house- ds found that 48.8% of fami- owned stock in 1998, either ectly or indirectly through mu- l funds or 401(k) pension plans. at was up sharply from 40.4% in 5. Thanks to the steep rise in ck prices, the average value of se holdings also soared, from 5,400 in 1995 to $25,000 in 1998.

ICKLING DOWN. While the richest ve benefited most, the middle class s progressed, too. The median net rth among households with incomes $25,000 to $49,999 rose by 6.5%, to 0,300. The value of stocks in this seg- ent climbed $3,000, to $11,500. The dian net worth of households earning m $50,000 to $99,999 climbed 20%, to 52,000, as their stock holdings in- eased 50%, to $35,700.

On the face of it, those families earn- g $100,000 and up did not fare quite well. The median net worth for that oup actually dipped slightly, to 10,800. But the average net worth se 22%, to more than $1.7 million, in- cating that the very wealthiest have ne extaordinarily well.

The surging economy, however, has ft the poor behind (page 34). House- lds making $10,000 to $25,000 a year ffered a 20% drop in their net worth they took on more debt. But for the st majority of families, the good times st keep getting better.

By Rich Miller in Washington

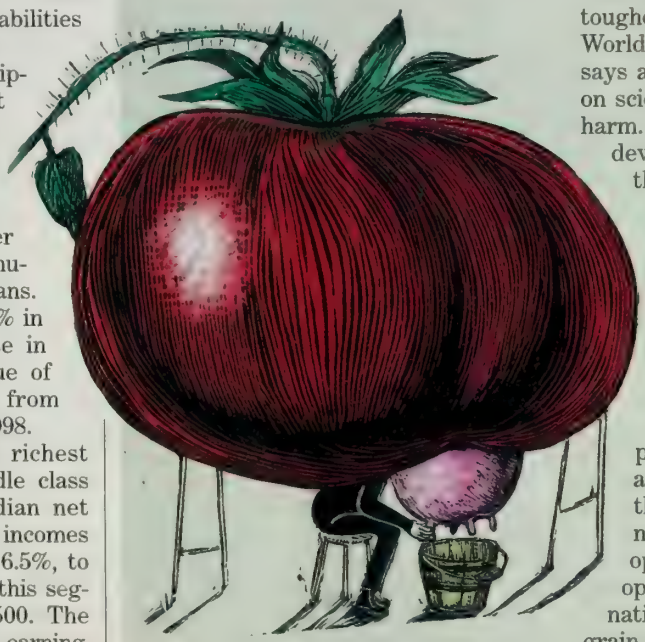
COMMENTARY

By Paul Raeburn

BIOTECH FOODS: WHY A HARD LINE COULD STUNT U.S. TRADE

Time may be running out for the U.S. agricultural-biotech industry. On Jan. 24, nations from around the world will gather in Montreal to consider proposed rules that could shut down trade in genetically modified foods (GMOs). This could be the biotech industry's best—and last—chance to strike a compromise. But because it is not a signatory to the Convention on Biological Diversity (CBD), the U. S. will be excluded from the negotiations.

"We do not have a formal vote and we cannot take the microphone in full plenary sessions," says the head of the U. S. delegation, David B. Sandalow, assistant secretary of state for Oceans & International Environmental & Scientific Affairs. Created at the Earth Summit in 1992, the CBD aims to protect threatened ecosystems. Critics say biotech foods and other GMOs pose a threat to these ecosystems. President Clinton signed the CBD in 1993, but Senator Jesse Helms has not allowed a Senate vote on it. So the U. S., by far the world's largest exporter of GMOs, remains an observer.



Another problem for the U. S. industry is that the Montreal talks concern the environment—not trade. "Trade ministries are influenced by industry preferences," says Robert Paarlberg of Wellesley College and Harvard University, who specializes in agriculture and trade policy. But the Montreal delegates, culled from environmental ministries, are less sympathetic.

NEW PROOF. Sandalow says the U. S. is troubled by three sets of proposals. One, from Europe, would require documentation tracing GMOs from the farm to the dock where they are delivered. A second, also from Europe, would require exporters to prove that GMOs are safe. That's a far tougher standard than that of the World Trade Organization, which says any regulations must be based on scientific findings of possible harm. A third set of proposals, from developing nations, would require that countries be notified and give consent before receiving shipments of GMOs. These proposals "will significantly disrupt world food trade," Sandalow says.

The U. S. biotech industry has taken a hard line against any regulations. But a more conciliatory approach could prove to be effective in Montreal. L. Val Giddings, who follows the negotiations for the Biotechnology Industry Organization, opposes the European and developing-country proposals. "International shipments of commodity grain intended for food, feed, and processing do not threaten biodiversity," he says.

Maybe so, but many GMO critics are adamant in their opposition. As Philip L. Bereano of the Council for Responsible Genetics sees it, the U. S. and its allies "are willing to jeopardize long-term ecological stability for short-term economic gain." The U. S. is unlikely to prevail without listening to its opponents' concerns. In Montreal, it will have no choice: The critics will have the microphones, while the U. S. delegates wave from the grandstands.

Raeburn is senior editor for science and technology.

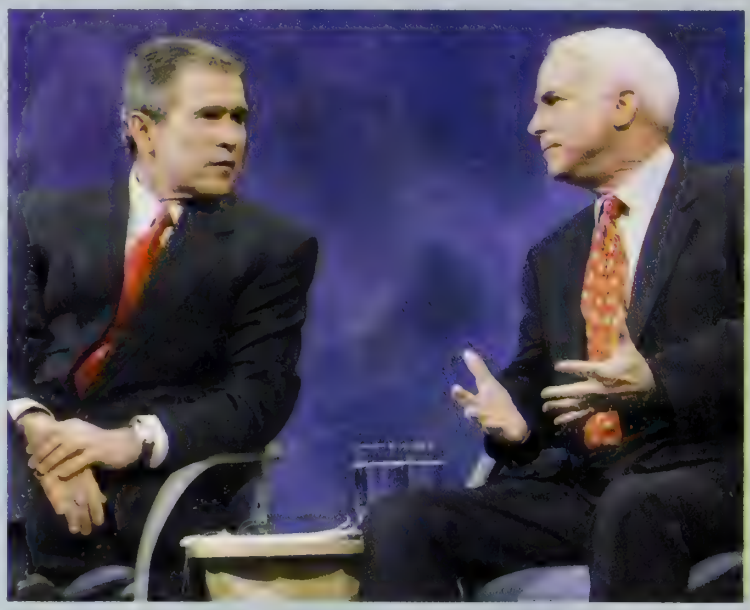
COMMENTARY

By Lee Walczak and Howard Gleckman

TAX CUTS: WHERE'S THE OLD MAGIC?

In case you just tuned in to Campaign 2000, there is nothing wrong with your TV set. Yes, that is John McCain, a stiff-backed conservative in the Goldwater tradition, blasting George W. Bush for backing "risky" tax cuts that threaten Social Security. And yes, that's Bush returning fire, charging McCain with failing to help low income taxpayers.

Officially, the Y2K race kicks off on Jan. 24 with an icy blast from Iowa's caucuses (page 50). And if the contest is noted for anything so far, it may well be these La Niña-like shifts in the political winds.



NEW TACK: *Bush and McCain vie to show empathy for the poor*

How come? Once again, it's the economy, stupid: The GOP's altered dialogue is the direct consequence of the triumph of surplus-generating Clintonomics and nine years of a boom economy. Republicans can no longer cast their tax plans in the traditional way, as a recipe for boosting anemic growth. Instead, they bill their tax proposals this season as structural reforms meant to generate more income for those bypassed by boom-time prosperity. "You're watching a party struggling to find a new language for unprecedented prosperity," says Marshall Wittman, a Heritage Foundation analyst. "No one has succeeded yet."

Among the new debates:

The surplus vs. supply side. On Jan. 26, the Congressional Budget Office is expected to forecast that if spending can be controlled, the 10-year surplus will hit $2 trillion. That's double the estimate of a year ago. In addition, the CBO says a New Economy surge could boost average growth to nearly 2.8%, up from 2.3%.

In theory, Republicans believe every dollar left in Washington will be wasted, so their natural impulse is to call for an immediate return of the bounty to citizens. Not this time: Republicans only back a partial rebate. Why? They're mindful of Bill Clinton's and Alan Greenspan's caution that unless a sizable chunk of the surplus is saved to pay down the national debt, there won't be a cushion for the Baby Boomer retirement wave. Of course, each Republican has his own approach to save Social Security: McCain sets aside an astonishing two-thirds of future surpluses for that purpose, publisher Steve Forbes calls for total privatization, and Bush promises to fight hard in his first year for a thus-far unspecified plan to fix the system.

ELECTION 2000 THE REPUBLICANS

Bigger may not be better. Since the Reagan era, Republicans believed the candidate with the boldest tax-rate cuts has the best chance to win voters' hearts. But this time, only former Vice-President Dan Quayle—an early Y2K casualty—and flat-taxer Forbes have called for Reagan-sized across-the-board cuts. And clearly, megatax cutters have gone nowhere at the polls.

At the moment, GOP primary voters are mainly pondering Bush's $1.3 trillion, 10-year plan vs. McCain's $497 billion proposal. Neither is considered particularly Reaganesque by supply-siders, who grouse that cost worries led Bush to forgo across-the-board tax cuts and a trim in the capital-gains tax rate. But according to a new study by supply-side economist Bruce R. Bartlett, the stock-market wealth effect has made Americans feel richer than statistics indicate, snuffing out sentiment for tax relief.

Out of the money. Instead of dreaming up new incentives for business investment—a traditional pastime of the GOP—Bush and McCain are in a contest to show empathy for low- and moderate-income Americans. Bush would do it by cutting the bottom 15% bracket to 10%, while McCain would cut rates from 28% to 15% for families earning $43,050 to $70,000 per year.

The Texan charges that McCain ignores the working poor, who could not take advantage of his rate cut. The Arizonan fires back that Bush is giving 36.9% of his tax breaks to people making more than $319,000 a year. That's a point Democrat Al Gore would happily make as well. Says Stephen Moore, fiscal policy director of the libertarian Cato Institute: "Republicans are genuflecting on the whole class-warfare argument."

Don't be surprised to see even more GOP contortions in the general election. Once the party's conservative-dominated primaries are over and more mainstream voters enter the picture, today's tax debates could be just a memory. They'll be replaced with arguments over schools, health care, and Social Security. These concerns seem much more central to voters in prosperous times—the new political reality Republicans are just beginning to recognize.

Walczak is chief of the Washington bureau, and Gleckman covers tax policy.

TED BY MARK FRANKEL

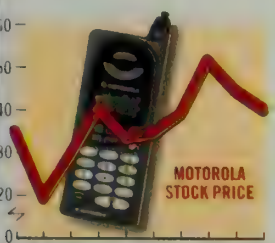
ID ON 'BIAS' OM THE FED

FEDERAL RESERVE CAUGHT uch flack for confusing the kets with its release of s" statements after its n Market Committee meet- that it's decided to scrap practice. On Jan. 19, it an- nced that it will simply tell markets where it thinks economy is going: higher ation, slower growth, or a ance between the two. ile the Fed said it hopes to hance communications," it y really be trying to make estors more uncertain, not , about the central bank's entions. When the Fed an- nced its bias toward higher s at various points in 1999, estors concluded—much to icymakers' chagrin—that a rate hike at the next meeting was certain. The new policy is designed to disabuse investors of such a notion and free the Fed's hands.

CLOSING BELL

TUNED UP

lotorola's comeback now oks like the real thing: On an. 17, the company report- d a triple-digit jump in ourth-quarter and yearend arnings. Anticipating strong ell-phone and semiconduc- or sales, investors boosted Motorola shares 8%, to 151, n Jan. 14. When the giant lidn't disappoint, posting ourth-quarter earnings of $514 million, yearend earn- ngs hit 1.3 billion, compared with $347 million in 1998. Motorola fell back to 140¾ on an. 19.



DATA: BLOOMBERG FINANCIAL MARKETS

ONE-MAN-RULE IS OVER AT COKE

DOUGLAS DAFT, THE INCOMING chief executive of Coca-Cola, won't be repeating one mistake made by his predecessor, M. Douglas Ivester—not naming a top lieutenant. Even though Daft doesn't formally take the helm until April, on Jan. 18, he picked Jack Stahl, 46, to serve as his president and chief operating officer. Daft wants to signal that he won't attempt the same one-man act as Ivester, whose refusal to delegate angered key Coke directors and led to his resignation. Coke watchers hailed the Daft-Stahl team as a perfect complement: While Daft has international experience, Stahl oversaw the U.S., Coke's largest market.

AND NOW: WEB-SPONSORED LUGE

WILL SPRINTERS AT THE NEXT Olympics dash at Internet speed? Monster.com, the job-hunting Web site, said on Jan. 19 that it will be a sponsor of the 2002 Salt Lake City Winter Olympic games and will be termed the "official career management service sponsor." The deal is valued at roughly $20 million, mostly on a cash basis, and will also include sponsorship of the 2002 and 2004 U.S. Olympic teams. Officials of the Salt Lake Olympic Committee say that other dot.coms are likely to sign on as sponsors.

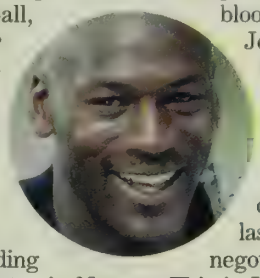
CITI BUYS A (SMALL) PIECE OF THE CITY

CITIGROUP WANTS TO BUY A bastion of The City. The financial services company said on Jan. 18 that it will acquire the investment banking business of London-based Schroders for $2.2 billion. Citi hopes that Schroders will make Citi a top player in the red hot European M&A market, where volume hit $1.5 trillion in 1999. But Citi could be disappointed. Schroders, combined with Citi's Salomon Smith Barney investment bank, would have placed only ninth in European M&A last year.

HEADLINER: MICHAEL JORDAN

FOR THIS JOB, HE'LL NEED WIZARDRY

Can Michael Jordan score from the manager's chair? On Jan. 19, almost a year to the day after retiring from pro basketball, the five-time MVP signed on as general manager and part-owner of the Washington Wizards.



It's a whole new ballgame for Jordan. After leading the Chicago Bulls to six National Basketball Assn. championships, he's used to winning. But the Wizards, 12–27 this season, have not made the playoffs since 1988 and have a hard time filling their D.C. arena.

Jordan faces challenges off-court as well. Sources close to the team say that he was wooed by part-owner Ted Leonsis, president of AOL Interactive Properties Group. But there's bad blood between Jordan's agent, David Falk, and Abe Pollin, majority owner of the Wizards, after the two clashed during last year's contract negotiations.

This is Jordan's second shot at an NBA team. A move on the Charlotte Hornets fell apart last year when owner George Shinn refused to cede control. How much control Pollin and Leonsis will give up remains to be seen.

By Lorraine Woellert in Washington

OPEC'S FIRM, AND OIL FOLKS ARE HAPPY

WHILE MUCH OF THE NATION shivers through winter, folks in the oil patch are feeling cozy, thanks to the rising price of crude oil. The March Brent crude contract hit a nine-year high of $26.30 on Jan. 19, and could spike higher. What's pushing up the price is a very tight supply of oil thanks to OPEC's production cuts. And recent comments by senior Middle Eastern officials have dashed hopes that OPEC would boost production at its March meeting in Vienna. Leo Drollas, deputy director of the Center for Global Energy Studies in London, says big producers may stick to quotas because they fear that any sign they might relax production limits could send oil prices crashing.

ET CETERA . . .

- Reality bytes: e-tailer Beyond.com will cut 20% of its workers as it revamps.
- What goes up . . . Oh, never mind: The Nasdaq set another record—4,151—on Jan. 19.
- Boeing is back in the air, with fourth quarter profits up 42%, to $662 million.
- Chipmaker AMD posted a $65 million quarterly profit—43 times expectations.

EDITED BY PAULA DWYER

IOWA IS A BELLWETHER OF —NOT A WHOLE HECK OF A LOT

On Jan. 24, Iowa voters will gather in school auditoriums and Rotary Clubs to begin the Presidential selection process. From Keokuk to Sioux City, Iowans will have "a massive impact" on the race, says GOP consultant Dan Hazelwood.

Just one problem: The state that flexes such disproportionate muscle in the White House sweepstakes is one of the most atypical in the nation. What's wrong with the Iowa caucuses? Let us count the ways:

THE WHITE-BREAD FACTOR. Iowa is not representative of America. Its population is 96.5% Caucasian and 15% elderly. That makes Iowa the fifth-whitest and ninth-oldest state. Despite an influx of Hispanic immigrants, Latinos account for just 2% of residents. Iowa has only two cities with more than 100,000 people and virtually no suburbs. Since 1940, it has plummeted from the 20th-largest state to 30th. Although tech jobs are up, agribusiness remains king. No wonder there's scant discussion of urban blight, suburban sprawl, or Internet taxes.

HOW'S THE CORN? *Bradley gladhands*

THE (FAR) RIGHT STUFF. If Iowa isn't exactly a cross-section of the country, the caucuses aren't even a cross-section of Iowa. Only 20% of the state's voters take part, and many veer toward the political extremes. Democratic gatherings are dominated by union members, environmentalists, peaceniks, and other liberals. Republican meetings are packed with abortion foes and antitax zealots. They are "much more extreme than the average voter," says Drake University professor Hugh Winebrenner, author of a book on the caucuses.

The result: Presidential candidates play to Iowa's narrow interests rather than the mainstream. Trying to woo pacifists, Democratic contender Bill Bradley has called for cuts in defense spending. Vice-President Al Gore endorsed a litmus test requiring the Joint Chiefs of Staff to favor gays servi openly in the military—a position he quickly reversed. A GOP favorite George W. Bush declared that Jesus Christ is l favorite political philosopher.

WHAT ECONOMIC BOOM? Only in Iowa could a candidate as "Are you better off now than you were seven years ago But that's just what Bradley did on Jan. 8. Why? With the re of the U.S. about to celebrate the longest expansion ev Iowa agriculture is in the dumps. Since 1996, corn and po prices have plummeted, net farm incor has tumbled 46%, and farm exports ha declined 22%. That's why federal fun for farms is one welfare program Whi House wannabes wanna keep.

CAN YOU SPELL PANDER? As a New Je sey senator, Bradley opposed tax subs dies for ethanol. Now that he's running Iowa, he's had a change of heart—pro ably because no candidate who oppos the state's cherished tax break stands chance of winning. Arizona Senator Jo McCain, who likens the tax break to co porate welfare, understands this. H chose to skip the Iowa caucuses.

WRONG-TRACK RECORD. Iowa has a terrible track record picking winners. If one of the Iowa favorites captures th White House, it would be the first time since 1976, when e Georgia Governor Jimmy Carter won a bare-knuckles rac Historically, Iowa has been a road to oblivion for such prev ous first-place finishers as Bob Dole (a two-time champ) an House Minority Leader Richard A. Gephardt (D-Mo.).

Don't expect pols to risk the wrath of Iowa voters b even suggesting a study of the state's role in the selectio process, though. Rather than ruffle Hawkeye feathers, a the candidates except McCain seem content to coo at th dodo bird of Presidential politics.

By Richard S. Dunham in Des Moine

CAPITAL WRAPUP

FALLOUT FROM SEATTLE

▶ Morale has plummeted at the U.S. Trade Representative's office following December's collapse of World Trade Organization talks in Seattle. Staffers note that the agency has been excluded from the lobbying drive to secure congressional approval of Most Favored Nation trading status for China. That effort will be run by the White House and Commerce Dept.

Meanwhile, the White House blames Trade Ambassador Charlene Barshefsky for the WTO debacle, reasoning that the agenda was overly ambitious and the organizational effort chaotic. The trade rep's staff and business lobbyists, in turn, blame President Clinton for his clumsy suggestion at the global conference that the U.S. eventually would use trade sanctions to enforce labor standards on developing nations. Barshefsky had repeatedly denied the U.S. would ever do that.

Barshefsky met with WTO Director-General Michael Moore on Jan. 19 to try to salvage something from the ruins of Seattle. Afterward, a downbeat Barshefsky said that new WTO talks aren't imminent. She blamed "inflexible" countries, likely referring to Europe, Japan, and India.

Now, the already strapped agency is facing a flood of personnel defections: Robert Cassidy, who led the U.S. team in talks with China, is retiring. The USTR's crack agriculture negotiator, Peter Scher, is expected to leave soon. So is J. Pate Feltz, the USTR's liaison to business groups lobbying on behalf of China. No word yet on Barshefsky deputy Susan Esserman, who oversaw planning for the WTO confab.

By Paul Magnusson

HOW DO YOU PREPARE NATURAL GAS FOR A LONG JOURNEY TO SOME COLD, REMOTE LOCATION? CHILL IT, OF COURSE.

Delivering vast quantities of natural gas over great distances gets to be not only logistically difficult, but expensive. So Phillips Petroleum developed a proprietary means of producing liquefied natural gas, a process that chills the gas, shrinking it over 600 times, turning it into a liquid form that is economically feasible to transport. Phillips licenses this unique process to develop remote sources of natural gas around the world. It's a valuable technology and another prime example of what it means to be The Performance Company.

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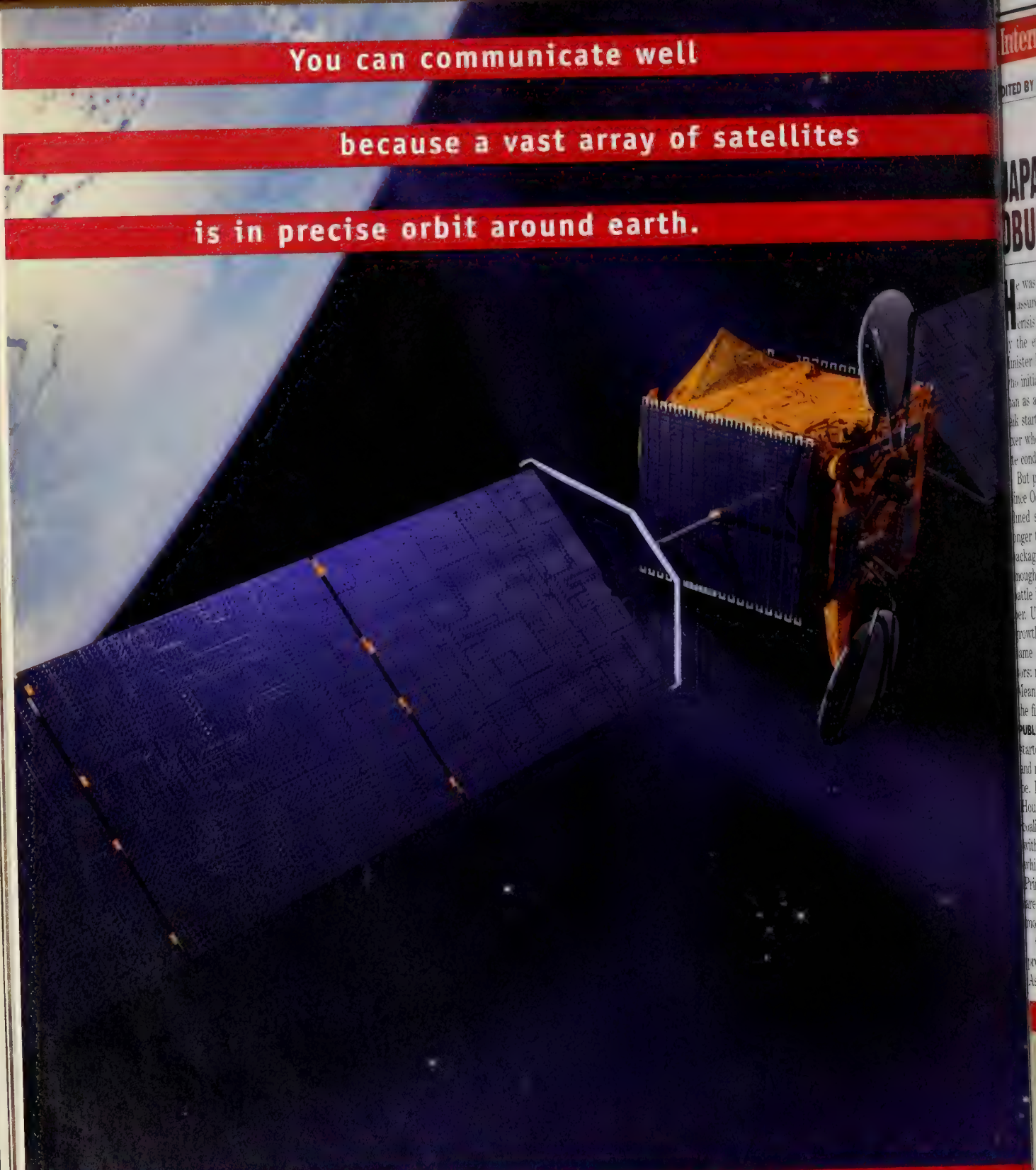

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ITED BY SHERI PRASSO

JAPAN: WITH REFORM CRUMBLING, OBUCHI MAY TAKE A FALL

e was the paternal politician who calmed the storm and assured voters Japan was back on track. He averted a crisis with a rescue of the deeply troubled bank sector. the end of his first year in office last August, Prime inister Keizo Obuchi had confounded his numerous critics, no initially dismissed the career Liberal Democratic Party an as a hack with a tenuous hold on the top job. Instead, lk started to circulate that Obuchi was a behind-the-scenes ker who could bring together the quarrelsome LDP and cre- e conditions for real recovery.

But perhaps the critics were right after all. nce October, Obuchi's approval rating has de- ined steadily. Economic recovery is taking nger than anticipated, despite three stimulus ackages totaling $560 billion. That's bad hough. But Obuchi's party also faces an uphill attle in a general election to be held by Octo- er. Unless he recovers his touch—or robust rowth bails him out—he may end up in the ame predicament as several of his predeces- ors: resigning over miserable election results. Ieanwhile, efforts to reform and deregulate he financial sector appear to be waning, too.

UBLIC DISGUST. What went wrong? For tarters, Obuchi cut a deal with a political devil nd miscalculated how bad public reaction would e. In order to seal a majority in the Upper Iouse last October, Obuchi brought into his oalition the New Komei Party, a fringe organization affiliated vith the politically ambitious Soka Gakkai Buddhist group, vhich is viewed with suspicion by the Japanese public. The 'rime Minister should have known better. Japanese voters re wary of the LDP's tactics to cling to power, and this latest nove only helped rekindle public disgust with Obuchi's party.

Obuchi also blundered by failing to reform the LDP, a romise party leaders have been repeating for the last decade. As recent economic packages show, the party continues to lay out pork-barrel projects for rural constituencies, where most of its politicians are based. As a result, the disaffection of urban voters with the LDP has continued to grow. It hasn't helped that Obuchi has given ground to the LDP's anti-reform camp. The conservatives have reduced pressure to carry through on more bank restructuring: That would cause pain to rural voters, who depend on rickety local banks for financing.

There are more signs that reform is adrift. Tokyo has eased capital requirements for regional banks, and has indicated that foreign financial institutions may no longer be welcome to take over ailing banks. In a move that shocked many, the Obuchi administration recently decided to extend, to 2003, a blanket protection for bank deposits. "I'm concerned about the entire reform process," says James Fiorillo, a senior bank analyst at ING Barings (Japan). "Obuchi is letting the election interfere with policy."

OBUCHI: *Broken promises*

The mounting unpopularity of the Obuchi administration has analysts predicting a tough election for the LDP. The party is likely to lose seats in the Lower House, though it may manage to stay in power with its coalition. If so, Obuchi would likely step down. "It'll be a tough year for the Prime Minister," predicts veteran political commentator Minoru Morita. "Many believe it's only a matter of time before he'll resign, either before or after the election."

One possible successor is senior LDP member Koichi Kato, whom many regard as a genuine reformer. He has publicly criticized the Obuchi administration for dodging true reform. "We can no longer afford to curry favor with the masses," Kato told the *Gendai*, a respected Japanese journal. "We must carry out fiscal reconstruction, raise taxes, and limit public-works spending." Tough talk. Maybe someday Japan will have a leader who acts tough, too.

By Irene M. Kunii in Tokyo

GLOBAL WRAPUP

KOHL RESIGNS

▶ The financing scandal enveloping Germany's conservative Christian Democratic Union has toppled former Chancellor Helmut Kohl. He was pressured to resign as CDU's honorary chairman after refusing to name the donors of $1 million in cash he received while Chancellor. Although Kohl protégé Wolfgang Schäuble is staying on as party head for now, he's under a cloud for accepting cash from an arms dealer. The CDU will likely have to turn to one of its younger leaders when it votes for a new chairman at a party congress set for April. Meanwhile, the scandal could force a new election in the CDU-controlled state of Hesse, a vote the conservatives are sure to lose. That would return control of the upper house of parliament to Gerhard Schröder's Social Democrats, easing the way for his program.

SPANISH ELECTIONS

▶ Spanish Prime Minister José María Aznar has called a general election for Mar. 12, hoping to win a new four-year term. He and his People's Party face a tough battle even though Spain's economy has improved under his tenure, with unemployment dropping seven points, to 15%. Opinion polls show a measly six-point gap between the PP and its Socialist rivals—a slimmer lead than Aznar had going into the last election. But few expect Socialist candidate Joaquín Almunia to overtake Aznar. The one big weakness in Aznar's administration, say the Socialists, is rising inflation—now at 3% a year—caused by its failure to move faster on deregulation.

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TED BY ELLEN LICKING

KING E GUESSWORK T OF DRIVE TIME

'T SLEEP EASY UNTIL 've caught the weather cast on the 11 o'clock s? Someday, you may also able to find out the next 's traffic outlook as well. n D. Leonard, a civil en- er at Georgia Institute of hnology, is developing a iputer-based model that hopes will give com- ters, delivery drivers, and one else navigating to- 's congested highways a diction of the time it will e to get between two nts within a city—and al- them to adjust their ns accordingly.

To build his forecasts, onard calculates the dis- ces between major land- rks in a city and uses idside cameras, sensors bedded in highways, ather forecasts, current cident reports, and other riables that can affect traf- , such as hotel occupancy els, school schedules, and orting events. With this ta, Leonard builds a traffic ap, using the same colored nds TV weather forecast- s use to show temperature tterns. With each colored nd representing 10 inutes, drivers simply unt the number of colored nds to estimate their trav- time.

Leonard's goal is to pub- h traffic forecasts via Web tes where users can click the beginning and end oints of their journey, and en get estimates of both rrent and future traffic con- tions. Leonard has been us- g his hometown Atlanta as e test market (current fore- sts can be viewed at ttp://traffic.ce.gatech.edu/ afficweather). Leonard says e could easily adapt his odel to other cities, includ- g Los Angeles and New ork. *By Daniel Northington*

WOULD YOU LIKE WHITE OR ORANGE RICE WITH THAT?

SOMEDAY THE PHRASE "AMBER waves of grain" may be used to describe rice paddies. An international team of researchers, led by Ingo Potrykus of the Institute for Plant Sciences in Zurich, Switzerland, has genetically modified rice to produce beta-carotene, which gives the grain a gentle, golden color and is converted into vitamin A in the body. The research was published in the Jan. 14 issue of *Science*.

Vitamin A deficiency is a serious public-health problem in 26 countries, including heavily populated areas of Latin America and Asia. That is partly because rice, which is the main dietary staple in these regions, is a poor source of the vitamin. So Potrykus' group introduced three new genes into the rice plant to turn it into a vitamin A-producing factory. By eating just two bowls of this modified rice a day, a person would get the recommended daily dose.

Extensive studies show there is only one difference between unmodified and genetically engineered rice plants—the presence of the vitamin that gives the modified version its amber color. The scientists are currently working with 10 different institutes to give subsistence farmers access to the new strain. □

A PILL TO TAKE THE STING OUT OF HEPARIN

PROTEIN DRUGS SUCH AS INSULIN AND HEPARIN ARE highly effective when injected, but patients complain that the medicine is painful and inconvenient to take. The Holy Grail in the drug-delivery field is to make these medicines work in pill or liquid forms. This is difficult because the body digests the oral forms before they have a chance to work. And even if the drug's breakdown could be prevented, large molecules such as insulin are difficult to transport through the walls of the intestines into the bloodstream.

For nine years, Michael M. Goldberg, chief executive of a Tarrytown (N.Y.) biotech outfit, Emisphere Technologies Inc., has maintained that these problems aren't insurmountable. Now he has proof. Emisphere is beginning late-stage human clinical trials of oral forms of the blood thinner heparin and the osteoporosis drug calcitonin. So far, these oral versions appear to be just as effective—perhaps even better—than injectable counterparts.

To deliver these protein drugs as pills, Emisphere developed special carrier molecules that shuttle the protein out of the intestinal cells and into the bloodstream. The company is using the technology to develop more than 30 different kinds of noninjectable drugs. Meanwhile, the oral versions of both heparin and calcitonin could to be approved by the Food & Drug Administration as soon as 2001. □

INNOVATIONS

■ Engineers at Purdue University are helping the U.S. Navy design a new generation of automated, nearly indestructible warships. These cruisers would be so tough that, even if heavily damaged by enemy fire, they could continue into battle without repairs. In the event of a missile strike, power would automatically be rerouted around damaged sections so that critical systems such as navigation, weapons, and communications would remain online. The Navy hopes to have the first "smart ships" in operation by 2010.

■ AntexBiologics, a small pharmaceutical company in Maryland, has developed a novel class of antibiotic compounds that may be effective against the strains of *enterococcus* and *Staphylococcus aureus* that are immune to the most powerful antibiotics. Chemists at Antex used rational drug design, which relies on mathematical algorithms to customize molecules so they will perform as drugs, to generate more than 10 million new chemical compounds. Laboratory tests show that one of them kills *Helicobacter pylori*, the bacteria responsible for peptic ulcers and stomach cancers.

ARTIFICIAL VISION

NOW, ELECTRONIC 'EYES' FOR THE BLIND

Brain-implant systems may soon hit the market

Blind people using a white cane to move through the underground labyrinth known as the New York City subway system are fairly common. But there's no one like Jerry. He doesn't have a cane or guide dog. Instead, he uses a prototype artificial eye. Later this year, an advanced version of his artificial-vision system should hit the market. The price will be steep, initially—close to $50,000—but could drop as production increases in volume.

Jerry, who asks that his last name not be used, lost all sight in an accident in 1974, when he was 36. A couple of years later, he began working with William H. Dobelle, then director of artificial-organ research at New York's Columbia-Presbyterian Medical Center and now CEO of Dobelle Institute Inc. Dobelle has waged a three-decade-long crusade, investing $25 million in technology to restore sight to the blind. Since 1978, Jerry has been a star guinea pig. "I'm in this with Bill for the long haul," he says.

The key to the artificial-vision system is a printed-circuit board, about the size of a jumbo postage stamp, implanted in Jerry's brain. The card has a grid of electrodes that stimulate the visual cortex, creating coarse black-and-white images. Individual electrodes are turned on and off on the basis of signals from a tiny TV camera mounted in the right lens of Jerry's sunglasses.

First, though, the video images must be digitized and processed by a notebook computer on Jerry's belt or in a backpack. Last summer, the system got a major overhaul. Thanks to new software and faster hardware, Jerry can now read 2-inch-high letters from 5 feet away—roughly equivalent to 20/400 vision. And in recent weeks, he has been learning to read the video signals from a computer so he can plug into the Internet. When Jerry says "plug into" the Internet, he means it literally: He yanks out the wire to his TV-camera eye and inser the end of the video cable from a His backpack computer must still act interpreter, though. Normal Intern screens involve way too much detail. Dobelle's programmers are experimenti to see how much "noise" can be e punged without destroying a screen's b sic functions.

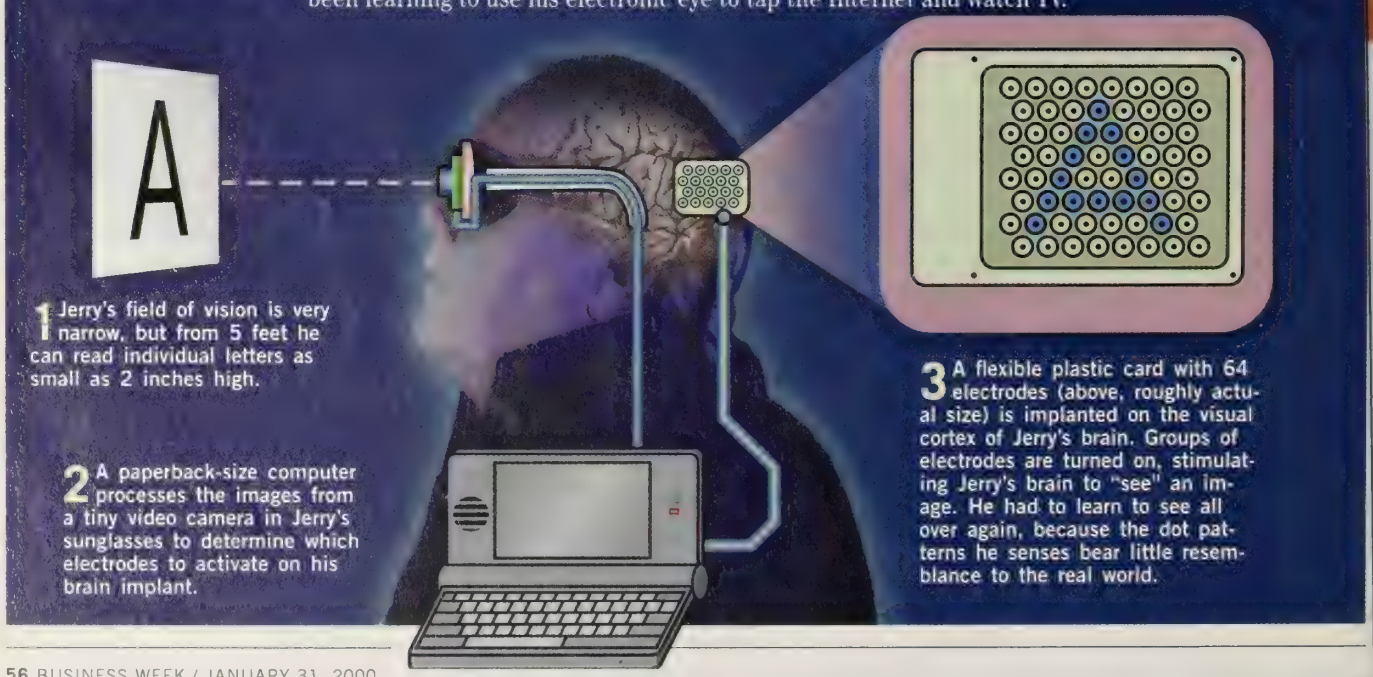
The technology has improved drama ically. Twenty years ago, the comput was as big as a refrigerator. And would often crunch data for minutes end to figure out an image's most salie features—the first step in determinin which electrodes to stimulate in Jerry head. As a result, the experience of art ficial vision had to be savored within single room. Moreover, Jerry then coul only discern letters bigger than 6 inche at 5 feet.

PIXEL POWER. Jerry can barely wait t get the commercial version of Dobelle electronic eye. Its brain card will fea ture 512 electrodes, eight times the num ber now inside Jerry's skull. That shoul provide a major increase in image quali ty. Of course, an image with 512 pixels i a far cry from the 200,000 pixels on to day's television sets, let alone the 20 mil lion in a 35mm photographic negative But if a grainy, low-resolution image ca restore some mobility and help blind peo ple hold down jobs that involve using PC, then even 512 pixels would be worth a billion words.

Dr. William J. Heetderks, head of National Institutes of Health program

Putting Visions in Jerry's Head

Jerry has been blind for a quarter century, but an artificial-vision system enables him to see spotty images. Recently he has been learning to use his electronic eye to tap the Internet and watch TV.



1 Jerry's field of vision is very narrow, but from 5 feet he can read individual letters as small as 2 inches high.

2 A paperback-size computer processes the images from a tiny video camera in Jerry's sunglasses to determine which electrodes to activate on his brain implant.

3 A flexible plastic card with 64 electrodes (above, roughly actual size) is implanted on the visual cortex of Jerry's brain. Groups of electrodes are turned on, stimulating Jerry's brain to "see" an image. He had to learn to see all over again, because the dot patterns he senses bear little resemblance to the real world.

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focused on developing electronic implants, is optimistic that high-tech implants "will be able to provide significant function to blind people." There's also an alternative to brain implants. Retinal stimulation uses a small imaging chip implanted in or behind the eye. One NIH-backed team, headed by Drs. Eugene DeJuan and Mark Humayun at Johns Hopkins Medical School, has placed temporary 25-pixel prototypes in more than a dozen patients. Similar technology is being developed by a group at Massachusetts Eye & Ear Infirmary and Massachusetts Institute of Technology—and by a team in Germany that includes the University of Bonn and startup Intelligent Implants.

OLD MODEL Retinal implants, however, require the eye and optic nerve to be healthy. They can't help Jerry or others who lost their eyes, or those with diseased optic nerves. That's why the NIH is also funding work on brain implants at Illinois Institute of Technology, although this research is still at the exploratory stage, says Heetderks.

Dobelle began his artificial-vision research in 1968 at the University of Utah. For the first dozen years, his main help came from a few farsighted executives. Harold Geneen, former chairman of ITT Corp., had his factories produce custom parts for Dobelle. Digital Equipment Corp. kept him supplied with the latest computers. And Polaroid Corp. founder Edwin H. Land gave Dobelle some stock, which Dobelle sold to finance his early work.

These benefactors suggested that Dobelle become self-supporting by adopting the Wright brothers' model: Wilbur and Orville Wright paid for their airplane with profits from their bicycle factory. So Dobelle created the Dobelle Institute and developed a much less risky line of medical products. The main one is a pacemaker-like gadget that regulates breathing for patients with severe respiratory problems. Since 1981, sales to some 100,000 patients worldwide have provided $18 million for artificial-vision R&D. The Dobelle Institute is privately held, and Dobelle says only that annual revenues are "in the millions, but not tens of millions." That's peanuts compared to what may be coming. Dobelle expects to sell 10,000 artificial-vision systems a year in fairly short order.

Americans, though, will have to travel overseas for the operation. The Food & Drug Administration will likely be wary of allowing a brain implant with a connection through the skull—a potential pathway for infection. Still, the outlook for blind people has never been brighter.

By Otis Port in New York

STRATEGIES

GOING NOWHERE FAST IN CYBERSPACE

So far, FedEx has only a toehold in e-commerce deliveries

Just last spring, FedEx Corp. was a hot-but-safe Internet play. The company's shares soared as investors realized that someone would have to deliver all those books, CDs, and whatever else American consumers might order from the World Wide Web. And that someone, many thought, would be Federal Express. In less than four months, the company's stock price nearly doubled, to a May high of 62.

But FedEx shares have since crashed back to around 44 as the company failed to deliver on its Internet promise. The Memphis-based company leads in overnight air delivery, but is getting trounced by arch-rival United Parcel Service Inc. in the growing business of delivering e-commerce parcels and packages. FedEx counted on its purchase of trucking outfit RPS Inc. two years ago to give it a leg up in the market for two-to-five-day deliveries—the less costly option preferred by most Internet customers. But poor integration of the two units have kept it from capturing much Net traffic. Concedes FedEx Chairman and CEO Frederick W. Smith: "UPS sells both air and ground together, and they do it very well."

That's a tough admission for 55-year-old Smith, a former Marine pilot who in 27 years virtually invented overnight express. But on Jan. 19, FedEx changed its corporate name from FDX Corp. and unveiled a restructuring aimed at taking on UPS more effectively. At its heart are plans to rebrand the RPS unit as FedEx Ground, beef up deliveries to residential neighborhoods, and unify its marketing.

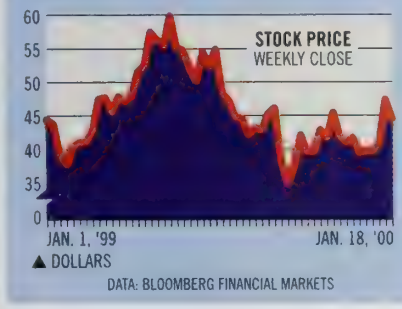
Certainly, change was needed. The company's operating income for the second quarter ended Nov. 30 fell by 10%, to $305 million, on revenues up 8.6%, to

FEDEX IS STRONG IN THE AIR, BUT ITS GROUND SERVICE HASN'T OFFERED NET OUTFITS COMPETITIVE OPTIONS AND PRICING

A STRUGGLING FEDEX...

- FedEx hasn't captured the exploding growth in consumer Net deliveries. It has just 10%, vs. 55% for UPS and 32% for the U.S. Postal Service.
- FedEx hasn't integrated its overnight delivery unit with RPS, the trucking company it bought to do cheaper 2-to-5 day delivery. Online retailers prefer UPS, which offers one-stop shipping services.
- Since FedEx and RPS trucks carry fewer residential packages than UPS, operating costs run higher.

...LOSES ITS NET PREMIUM



DATA: BLOOMBERG FINANCIAL MARKETS

.6 billion. The flagship FedEx air operation saw growth in its domestic parcel business slip to less than 3% in the quarter, from 14% in fiscal 1998.

The biggest problem: UPS has done a better job than FedEx in winning deals from e-merchants such as Amazon.com to deliver the piles of packages that consumers order online. During the 1998 holidays, UPS had some 55% of the e-commerce delivery market, the U.S. Postal Service 32%, and FedEx just 10%, according to Redwood City (Calif.)-based market watcher Zona Research Inc. Although numbers aren't available for 1999, FedEx executives acknowledge they remain largely unchanged. And the stakes of missing out are huge: Already, online vendors shipped an average of nearly 50,000 packages per day last year. By 2003, according to Internet specialists Forrester Research Inc., that could grow to more than 4.2 million daily shipments.

ARM'S LENGTH. Third place is not exactly what FedEx had in mind when it bought RPS and several related companies two years ago for $2.7 billion. At the time, FedEx knew it needed to offer its customers ground shipping services if it wanted to meet UPS head-on.

But FedEx feared integrating the two companies too closely might tarnish the FedEx brand, so RPS was kept at arm's length. The two units have been run as separate companies, each with its own sales force and information systems. That made things tough for corporate customers who wanted to ship both on the ground and overnight. Instead, they have had to deal with two salespeople, call different numbers to order a pickup, and check different FedEx-run Web sites to track shipments. "For a company as professional as FedEx, it was almost an embarrassment," says Amazon.com's Transportation Director William R. Transue.

By contrast, UPS offers one-stop shopping. Customers can contract for services ranging from same-day and overnight delivery to shipping that takes a week. The same UPS truck picks up the parcels, and the same UPS representative handles complaints. The convenience has allowed it to attract many clients, especially smaller Web businesses, that FedEx failed to woo. Just as important, cross-selling its services lets UPS offer volume discounts. "FedEx is realizing that customers value a full portfolio of services and they're trying to get into position to mirror what we've got," says Joseph M. Pyne, senior vice-president for marketing at UPS.

Indeed, FedEx's reorganization aims to bring its offerings much more closely in line with those of UPS. The air and ground services will combine sales forces and information systems. The new FedEx Ground, meanwhile, will beef up its residential routes, reaching half of all American homes this spring.

So far, the shakeup is winning plaudits. "They're going to go right at the heart of UPS," says Jeffrey L. Pittsburg, head of research house Pittsburg Institutional Inc., which holds a small number of FedEx shares. "I like what I'm hearing." It could also improve FedEx's falling margins, which now stand at less than half of UPS' 14.7% level. One big reason: Big Brown's delivery trucks carry more packages and make more stops in a neighborhood, lowering operating costs.

But customers are likely to take a look-see before leaping. Although Dell Computer Corp., for example, uses FedEx planes to haul microchips and computer memory from manufacturers in Asia to its plants in Nashville and Austin, Tex., many of its customer deliveries go by UPS trucks. "We want to see how they execute the residential side of their strategy before thinking about a switch," says Richard L. Hunter, Dell's vice-president for supply-chain management.

Some question whether FedEx has gone far enough. For now, Smith says he has no plans to merge the two fleets of truck drivers or the package-sorting operations. Yet that could improve economies of scale. "Running two separate distribution networks doesn't make any sense," says Joel P. Fishbein Jr., a portfolio manager for New Jersey's pension fund, which holds 1.6 million shares.

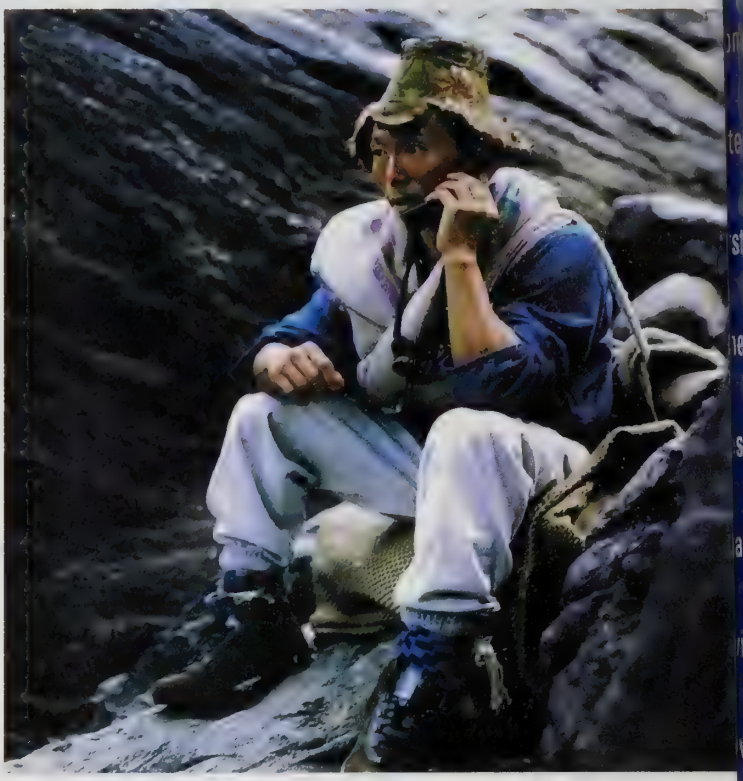
FedEx

The stakes are huge. By 2003, e-tailers will ship 4.2 million packages daily

Smith counters that the FedEx and RPS networks were designed with different cost structures—and built to offer different levels of service. The express portion of the business is designed for maximum efficiency and reliability, while RPS' ground network is designed to trim costs. "The average FedEx package is scanned 14 times," he says. "You can't afford to scan a ground package 14 times and still expect to make a profit." Perhaps. But FedEx can't afford to take half-measures if it expects to bolster profits, either.

By David Rocks in Memphis

dreams made real.



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Optical Networks' Quick Start

The upstart plans to make major announcements on Jan. 22. Here's the skinny:

- It has raised $75 million in equity from investors, including phone carrier Williams Communications and equipment maker Juniper Networks.
- It now has its first four contracts for a total of $50 million in revenues over the next 24 months. COLT Telecommunications, the biggest customer, is ordering $30 million worth of equipment.
- The other three customers are upstart phone companies KVH, Metro Red, and Marietta Fiber Net.

MARTIN: *ONI could be a leading supplier of superfast networks*

TELECOMMUNICATIONS

CHARGE OF THE LIGHT BRIGADE

Next-generation optical gear is entering the local market

Two years ago, Hugh Martin was enjoying the Silicon Valley version of a sabbatical. The veteran of Apple Computer and struggling computer-game maker 3DO was an "executive in residence" at the venture capital powerhouse Kleiner Perkins Caufield & Byers. Then in late 1997, Kleiner partners offered him a chief executive post at any of the dozen startups in their portfolio. He chose Optical Networks Inc. (ONI), which makes communications equipment that carries voice and data traffic on glass fibers instead of the traditional copper wires. "I was knocked out by the business plan," says Martin.

Good choice. Over the past year, optical-networking companies have become the darlings of the technology world. Just check out Sycamore Networks Inc. Its stock has rocketed sevenfold since its initial public offering in October, for a market cap of $21 billion—even though it has a minuscule $19 million in revenues. Contender Qtera Corp., with almost no revenues, got scooped up by telecom-equipment giant Nortel Networks Corp. last month for $3.25 billion. And on Jan. 17, equipment maker JDS Uniphase Corp. agreed to acquire an optical-networking player called E-Tek Dynamics Inc. for $15 billion.

Now, Martin and ONI may surpass all their brethren. The company makes optical equipment that routes calls within the local-telephone network at a fraction of the cost of competitors' gear. For example, ONI says its optical routers cost $50,000 to $100,000, or half the price of equipment from larger rivals Nortel Networks and Lucent Technologies. Customers are taking note. On Jan. 22, ONI plans to announce that it has landed four deals that will generate $50 million in revenues over the next two years, including a $30 million order from European upstart COLT Telecommunications. Based on comparisons to companies like Sycamore Networks, ONI already could be worth $20 billion, according to Robertson Stephens analyst Paul Johnson.

Why is optical networking all the rage on Wall Street? The technology could be crucial in realizing the promise of the Internet. Right now, the rickety old telephone networks are straining as the flood of Net traffic in the country doubles every month. Optical technology has the potential to boost the capacity of telephone companies' networks a millionfold. "You're not going to be a player in the next generation without optics," says Michael O'Dell, chief scientist at MCI WorldCom Inc.'s UUNet Internet unit. "It's life and death."

COLORED BANDS. Here's an inside peek into how optical technology works: Traditional phone networks turn voice or data into electrical impulses called electrons that travel on copper wires. Optical networks convert that information into bits of light—photons—that are sent over fiber-optic cables made of glass. Optical networks have a million times the capacity of traditional phone systems because photons are lighter than electrons and can travel faster because they encounter less resistance in glass.

And optical technology is improving dramatically. In 1995, equipment makers discovered that special lasers could shoot multiple bands of light through a single strand of fiber-optic cable. The bands of light are each a different color, although they aren't visible to the hu-

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man eye. These first systems split a fiber into eight separate colors, each carrying 120,000 calls. The latest systems, known as dense wave division multiplexing, break a fiber into 128 colors, and Lucent has tested systems that produce 1,022. In other words, a single optic fiber that used to carry 120,000 calls can now carry a staggering 12 million—and that will grow to more than 100 million in the next few years.

While advanced optical equipment already has been rolled out in the long-distance market, it's just starting to take hold in the local phone markets. Optical equipment hasn't been cost-effective in neighborhoods until now because local carriers can't spread fixed costs among as many customers as long-distance carriers. But costs are dropping, and demand for more capacity is rising thanks to the Net. So regional Bells and GTE Corp. are ready to retool. "Everyone will start using [optical technology] in the local market," says Ray Albers, director of network architecture at Bell Atlantic Corp., which is rolling out its first DWDM network in New York City. And not just phone companies. Even corporations are beginning to buy optical equipment to increase the speed of the connections among their office buildings. Overall, the local market for optical equipment will hit $5 billion or more in 2003, up from $100 million in 1999, analysts estimate.

Local-phone companies need to spend billions to meet the growing needs of America's Web surfers. Households and businesses are upgrading to high-speed phone lines that spew vast amounts of data, often 20 times the amount of data they've sent in the past. The number of speedy access methods—cable modems and high-speed digital subscriber lines (DSLs)—will double this year in the U.S., to about 3 million, Yankee Group Research Inc. says. Those lines that come out of people's homes are like side streets that feed into main avenues. As the side streets become busier with DSL traffic and the like, optical technology will be used to widen the avenues.

TEAM PLAYERS. The battle for the local phone market is so fierce that a legal battle erupted between ONI and Nortel. ONI's equipment is based on technology created by Rohit Sharma, who worked at a firm partly owned by Nortel. When Martin arrived as CEO, he hired so many of Sharma's acquaintances at Nortel that he was able to field a company hockey team in Silicon Valley. Nortel was furious and filed a lawsuit. A court decision handed down last year ruled that ONI could hire Nortel employees as long as they

Warp Speed

Optical networking stocks are soaring

COMPANY	ONE-YEAR RETURN
HARMONIC	997%
JDS UNIPHASE	910
E-TEK DYNAMICS	665
SYCAMORE*	584
CIENA	267

*Since its IPO in October, 1999 DATA: BLOOMBERG

Blinded by the Light

Since the invention of the telephone, AT&T and other telecom companies have used electrical networks that convert voice and data into pulses of electrons that travel over copper wires. Now, phone companies are switching to optical networks that convert data into bits of light—photons—that travel over optical fibers made of glass. The reason: Copper wires can carry only a few million bits per second, while optical lines transport up to 1 billion times as much data.

TODAY'S TELEPHONE NETWORKS

LOCAL NETWORKS A local call or e-mail is transmitted in electrical format through the local copper network until it is handed off to an optical system on its way to the long-distance network. That has made the local-phone network a bottleneck.

REGENERATORS When signals travel through the long-distance network, they only have enough power to go 125 miles or so at a time. So, they need a power boost from something called a regenerator. That means phone companies need thousands of expensive regenerators throughout their networks.

CAPACITY When long-distance companies started using optical fibers in the early 1980s, each fiber could carry 120,000 calls. That began to change in 1995 as equipment makers learned how to split one fiber into four channels, each capable of carrying 120,000 calls.

NEXT-GENERATION NETWORKS

LOCAL NETWORKS The Bells and GTE are starting to bring optical technology into the local networks. That means a company's Net traffic could hit fiber-optic cables in the basement of its office building instead of near the long-distance network. That will boost capacity up to 1 billion times.

REGENERATORS A new generation of optical equipment that will gain momentum this year will drive signals for thousands of miles, not 125. That will reduce the need for so much expensive equipment, dropping the cost of a long-distance network up to 85%. Savings could be passed along to long-distance customers.

CAPACITY Optical technology called dense wave division multiplexing (DWDM) now allows companies to split each strand of fiber into 40 channels, and that could grow to more than 1,000 channels in the years ahead. Then, one fiber could carry 122 million calls, instead of the current 5 million.

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don't contribute specific Nortel ideas to the upstart.

Nortel has reason to be sensitive. The former Northern Telecom has been the leading equipment vendor to local phone companies, in part because the regional Bells and GTE were reluctant to buy from Lucent, which was part of AT&T until four years ago.

Now, ONI is offering a tough challenge to both giants. Martin brings the economics of the computer industry into the optical-equipment market. While traditional phone gear uses massive central power systems and computer processors, ONI's products incorporate smaller equipment that can be scaled up incrementally to meet the needs of customers. That scalability is critical in the local market because one piece of equipment often serves a smaller population than in the long-distance market. For example, Nortel and Lucent sell gear with backup power supplies that cost about $2,000, while ONI uses tiny power systems that start at $100 and can be added to incrementally. "They are going to be a hot company," says analyst James Kedersha of S.G. Cowen Securities Corp. Networking rivals Cisco Systems and Juniper Networks both have invested in the company.

BIG DISCOUNTS. Not that Nortel and Lucent are conceding an inch. Both acknowledge that ONI may have some cost advantages in its optical equipment. But they argue that they have long relationships with the phone companies—and they'll offer big discounts if their customers buy packages of products. Nortel, for one, expects to thrive against ONI. "The numbers that we achieved in 1999 give us comfort that we are going to take off in 2000," says Don Smith, vice-president and general manager of Nortel's Optera metro equipment unit.

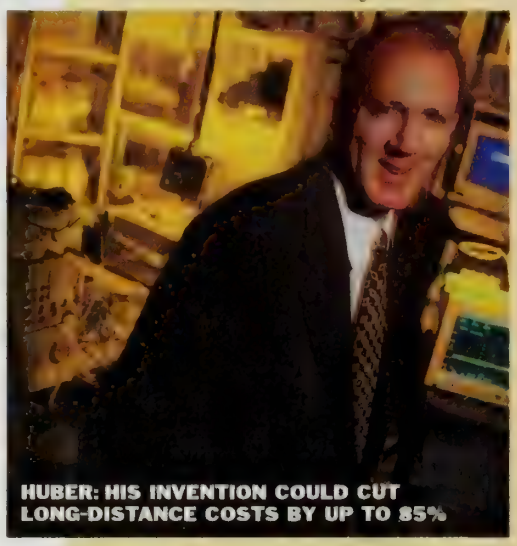
As for Lucent, it conceded that revenue and profit growth in the fourth quarter of 1999 won't meet analysts' expectations in part because it underestimated demand for optical equipment. After his stock tumbled 23% in one day, Lucent Chairman Richard A. McGinn insists the company won't make that mistake again. "We expect the metro market to be very significant," McGinn says.

Martin expects to hold his own against the giants. "We are going to give the incumbents a run for their money because our equipment is designed from the ground up for this market," he says. If he's right, Martin may have made the best career choice of his life.

By Steve Rosenbush in New York

WHY CORVIS IS BELLE OF THE TELECOM BALL

When executives at telecom-equipment giant Lucent Technologies Inc. stopped by the booth of Corvis Corp. at a trade show last June, it didn't take long for them to get jazzed. Within two days, Lucent asked if it could buy the optical-networking startup. But then, so did Nortel Networks Corp. six months later. And what about Cisco Systems Inc., the third of the communications-equipment industry's holy trinity? "The lore in Silicon Valley is that Cisco's board will approve anything up to $9.9 billion to buy Corvis," says Robertson Stephens analyst Paul Johnson.



HUBER: HIS INVENTION COULD CUT LONG-DISTANCE COSTS BY UP TO 85%

That's a lot of fuss over a company still awaiting its first dollar of revenue. But then, Corvis founder and CEO David Huber has technology with tremendous promise. The 49-year-old Oregon-bred physicist says his product—an optical router, which directs phone calls and Internet traffic through telephone networks—can cut the cost of long-distance networks by up to 85%. "It's truly a breakthrough technology," says Vab Goel, vice-president for emerging technologies at phone carrier Qwest Communications International Inc.

Here's how it works: Today, voice or data signals that zip through a long-distance network only have enough power to travel 125 miles or so at a time. That means AT&T and others need to install thousands of so-called regenerators to boost their power along the way. Huber's machine can send signals 2,000 miles at a time, eliminating the need for most regenerators. Another bonus: Huber's invention routes telecom traffic entirely in the form of light signals, instead of using electrical signals. That means the switches can handle vastly more traffic, faster. "It's like taking a nonstop flight instead of a bus that stops at all the little towns along the way," says Huber, who may take his company public later this year.

If Corvis takes off, it's Huber who will be flying high again. In 1994, he co-founded Ciena Corp., the early front-runner in an optical technology that increases the capacity of long-distance networks. But three months after Ciena's scorching initial public offering in 1997, he left because of a nasty spat with CEO Patrick H. Nettles. Nettles says Huber, then Ciena's chief engineer, wanted a research team reporting to him without any commitment to deliver specific products. Huber says he wanted to develop a machine like what he has built at Corvis.

Now, that machine is attracting attention. It has three telecom players testing its equipment—Qwest, Williams Communications, and Broadwing—and expects its first sale by March. The company could hit $100 million in sales over the next year. Rival Lucent doesn't plan to come out with a competing machine until the second half of this year.

That has Huber sitting pretty. He owns about 32% of Corvis, since he used his Ciena profits of about $350 million to match the money early venture investors put in. He wanted to avoid repeating his bitter experience at Ciena, where investors had enough stock to tap Nettles as CEO instead of him. If Johnson is right that Corvis is worth $10 billion, then Huber's stake is worth $3 billion. Success may be the best revenge.

By Timothy J. Mullaney in New York

BusinessWeek ONLINE

For a profile of Corvis CEO David Huber, go to www.ebiz.businessweek.com.

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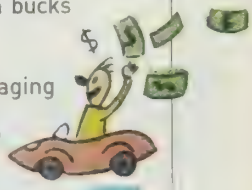

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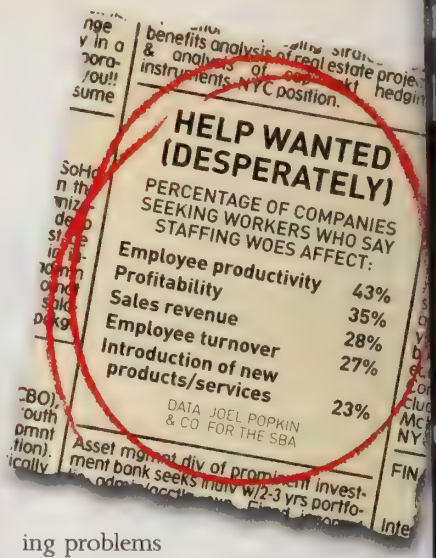


We've Got To Get Our Hands on Some Workers

WILL THE TIGHT labor market be the Achilles' heel of small business in 2000? A new Small Business Administration study suggests that small companies are squeezing as much as they can out of their existing staff, and this could inhibit their ability to expand in the year ahead. The study, which was based on U.S. Census Bureau data and a special labor-market survey of 752 small companies conducted in September, 1998, by the National Federation of Independent Business, found that 63% of companies hiring had some trouble finding workers.

An increased workload is unleashing a nasty ripple effect on existing workers. Forty percent of companies with hiring problems said employee morale was flagging, while 36% said their product or service quality suffered. Some 35% of the companies with hiring problems reported that growth and hours of operation were constrained by lack of staff. "That's indicative that output could be struggling," warns SBA economist Brian Headd.

Bumper E-Crop

YANG: Yahoo! co-founder

BE FRUITFUL and multiply. It's an ancient directive being heeded by those most modern of beings, Internet entrepreneurs. On average, so-called Netpreneurs plan to start at least five—yes, five—online businesses in their lifetimes, according to an Ernst & Young survey of 150 Net company founders. It's not just IPO riches motivating these prodigious producers, either: 67% of survey respondents say they're drawn to Netpreneurship because it "represents a new frontier." And 59% say "it's an appealing alternative to the traditional corporate ladder." Indeed, 27% say they would have plunged into corporate life had the Net not existed.

DUBINSKY: Palm Pilot creator

FILO: Yahoo! co-founder

Y2K Didn't Bug Small Biz

DURING THE COUNTDOWN to 2000, tech soothsayers bashed small businesses for largely ignoring the millennium computer bugs ostensibly lurking in their computers. (An estimated one-quarter of small companies chose to do nothing to fight Y2K, according to the National Federation of Independent Business.) So why was there such a smooth rollover to 2000, with scant reports of small-company computers going on the fritz? Turns out the Y2K brain trust missed some details: For one, many small companies—some 20%—don't even use computers. Of those that do, most use off-the-shelf software, which proves easier to fix than the custom code deployed inside corporations. What's more, the NFIB reported that 9 in 10 small companies upgraded critical systems over the past two years with Y2K-compliant gear. Says Dillon Jackson, a Seattle lawyer who studied the potential effects of Y2K: "This was a yawner." Small businesses, it seems, were rightfully resting easy from the get-go.

SO THEY SAY

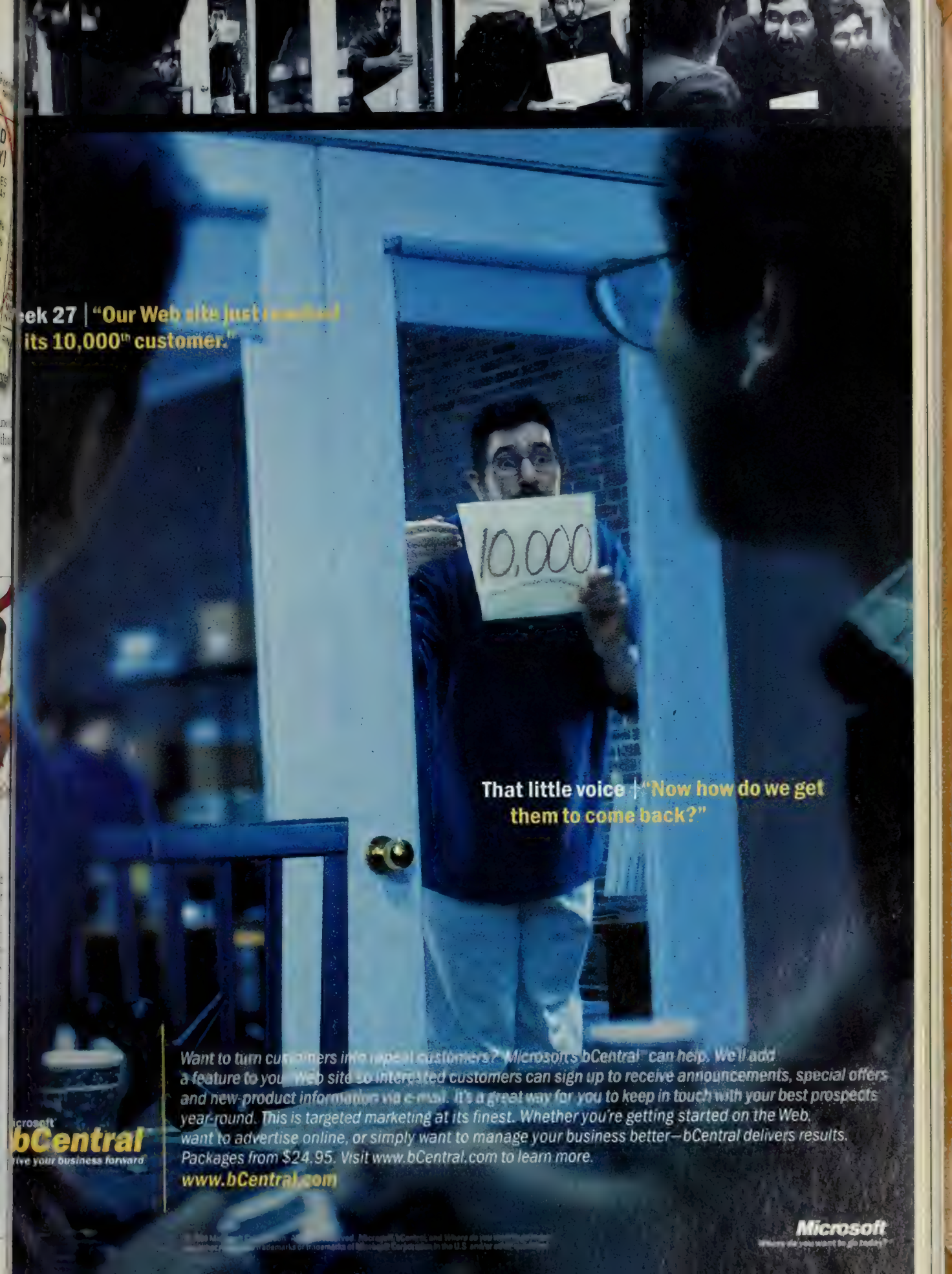
"Technologists are not going to worry about costs. So you'd better."

—AUTHOR LENNY LIEBMANN on calculating the payoff from tech purchases (page F.18).

Paper Tigers 6%

Percentage of owners who would prefer to spend more time on administrative chores.

ONE IOTA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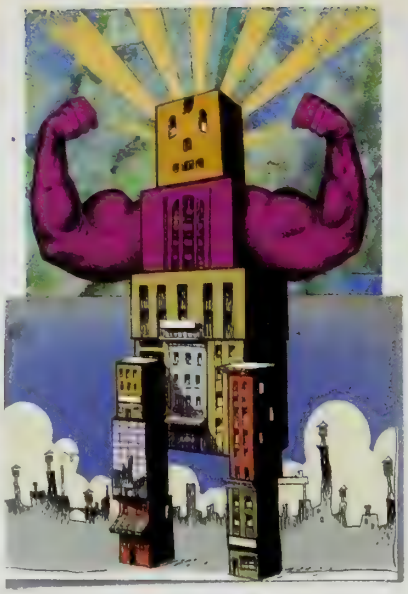

Rollups Redux

REMEMBER THE ROLLUP? In the late '90s, financiers were high on buying dozens of small companies and squishing them into one publicly traded concern. Although rollups bombed on Wall Street because they couldn't grow as fast as their stock prices demanded, they're quietly thriving again—this time funded by groups of private investors looking for value and income. In fact, says investment bank Howard, Lawson & Co., private dollars are pouring in at three times 1997 and 1998 levels, when rollups were hottest. "As long as the economy holds up, there's more and more demand for small and middle-market companies," says T. Patrick Hurley Jr., a Howard, Lawson partner. What's more, business owners who sell out today are being paid nearly all in cash, as opposed to the stock-and-cash deals that once dominated. "Before, when you sold for six times operating income, you took some stock that many people saw decline in value," says Hurley. "Today you're not dependent on someone's ability to issue stock to get paid." Want to get rolled? One way is to get your name out through a business broker. You might start with the International Business Brokers Assn. (www.ibba.org).

Webcams Unbound

WANT TO USE one of those handy Webcams to monitor a storeroom or construction site? Used to be that you'd have to hook the camera directly to a computer, making for an obtrusive, and ultimately expensive, setup. Two new Webcams now attach to a network or server via standard phone or cellular line, no PC required. Moonlight Products' $400 FoneCam is a combination digital camera and modem that snaps images on a schedule or on demand (858 625-0300, www.fonecam.com). Axis Communication's $999 Axis 200+ Web Camera captures up to six frames per second (978 614-2000, www.axis.com).

Finance Packages from UPS

IT'S NOT JUST brown paper packages tied up with string. Starting this month, United Parcel Service launches its UPS Capital subsidiary, hoping to woo small-business dollars with logistics and financing offerings that complement its delivery system. That will include equipment-leasing up to $250,000, as well as warehouse storage and inventory factoring. The company promises competitive rates, though it admits "they won't go unmatched in the market." If you do a lot of shipping, the offers are certainly worth a gander. Otherwise, you might still find cheaper alternatives from traditional lenders and warehousers. The best news: Having the Men in Brown in the game should put competitive pressure on the likes of American Express and GE Capital, each of which offer their own equipment leasing.

FRONTIER ONLINE

News and advice from our small-business Web site

Bye-Bye, Tax Break

Slipped into a little-noticed bill, a new U.S. law governing business sales closes a loophole that for years favored small-business owners. The law requires business owners that use the accrual method of accounting to pay capital-gains taxes at the time they close the sale of their companies, even if they receive payments over an extended period.

Here's the logic: Under the accrual method, businesses account for a transaction (purchase or sale) when it's formalized—not when the money actually changes hands. The same logic is supposed to apply to their taxes: They pay taxes or claim a deduction in the tax period when the deal is inked, even if no cash has been transferred yet. Yet business owners had been allowed to pay capital-gains taxes over time on businesses sold on an installment basis—even if they used the accrual accounting method.

Get 'Em While You Can

To hear business-school officials talk these days, you'd think their grads are chucking their consulting and finance careers and heading to Internet startups in droves. Well, not exactly. In a survey of 18 of BUSINESS WEEK's top 25 B-schools, 42% reported that the top career choice among second-year students continues to be management consulting. At 32% of the schools, finance jobs are the first choice.

So how can small companies recruit these young workers, especially when the recruiting programs at most are still designed to funnel students to big companies? One approach is not to play the recruiting game at all, but to use the school's entrepreneurial incubators and business-plan competitions to make direct, year-round connection to the students.

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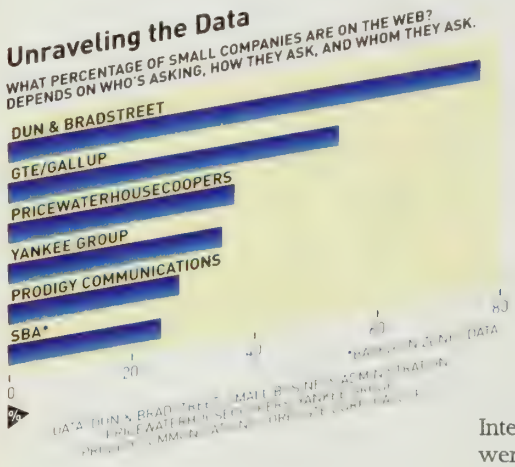
Who's Dot and Who's Not?

When it comes to small business, nobody seems to know

JUST HOW MANY small businesses are on the Internet? According to some estimates, more than half of all your peers have Web sites, making the entrepreneurial community look like a pretty well-wired bunch. But, wait, not so fast: Other surveys show that 6 out of 10 small companies lack even basic Internet access—in other words, they don't even have e-mail.



Has somebody goofed? While many credible research outfits are studying small-business usage of the Net, you'd be hard-pressed to find two surveys that agree even on the basics, such as how many are connected to the Web (chart), let alone how many actually run a site or do e-commerce.

"Beyond vague estimates, we know very little," concedes Bruce Phillips, director of the Office of Economic Research at the Small Business Administration's Office of Advocacy, which recently compiled a review of such private research reports. It's possible to get a general idea of small-business activity online from these surveys—for example, studies by Dun & Bradstreet and another by Yankelovich Partners for Pitney Bowes confirm that small businesses tend to use the Net for research and for e-mail.

So why won't any of their numbers match up? First problem: The number of small businesses online changes hourly. Second, definitions of "small business" vary by research entity. Pitney Bowes looked at companies with 24 or fewer employees, while Prodigy Communications Corp. went up to 99. And what does "being on the Internet" mean, anyway? To Prodigy, it's "advertisement and promotion on the Internet," while others say it's using e-mail or having a Web page. Results also vary because of differing goals and methodologies: PricewaterhouseCoopers wanted to know what fast-growth companies are doing online; GTE Corp. and the Gallup Organization assessed attitudes toward the Internet; Prodigy looked for businesses that weren't wired.

Despite the conflicting data, there's at least one sure bet: The number of small companies in cyberspace will rise as the Web increasingly becomes a necessity. "How many businesses are operating without a telephone?" says Rick Miller, an Internet analyst at Cahners In-Stat in Newton, Mass. The next survey might well ask: How on earth did you function without the Internet? —ALISON STEIN WELLNER

For more on how small business uses the Web, click on Online Extras at **frontier.businessweek.com**

Going Global for Growth

More small companies are looking abroad to increase sales, reports PricewaterhouseCoopers in its quarterly Trendsetter survey of CEOs at fast-growth small companies. In 2000, 45% plan to sell abroad, up from 37% a year ago—and they expect more revenue growth than their domestic-only counterparts. Why the high expectations? In part, these CEOs are growing more sanguine about prospects for the global economy. Three-quarters said they're optimistic about the next 12 months, vs. just 20% a year ago.

CURRENTS

Home Invasion

Are employers responsible for federal health and safety violations that occur in employees' home offices? That's a tricky question, as Labor Secretary Alexis M. Herman recently learned. Following protests from business groups and lawmakers early this month, Herman retreated from a ruling that employers could be held liable for hazards such as unsafe stairs and bad lighting in their workers' home offices.

Nearly 20 million Americans telecommute, a fact that employment law has been slow to recognize. Any new restrictions would be a blow to small companies that try to retain workers through flextime and other arrangements tied to work at home. "The current legal structure doesn't work very well for telework," frets Bob Blackstone, a Seattle legal specialist on telecommuting.

What next? Herman plans to initiate a "national dialogue" on telecommuting regulations later this year—an effort, she says, to determine the "rules of the road" in a rapidly changing workplace. Entrepreneurs, stay tuned. —CHRIS SANDLUND

I'm So Mad...

What bugs business owners the most? The National Commission for Entrepreneurship in Washington, D.C., has been interviewing entrepreneurs nationwide. Here's what they've heard so far:

- **Benefit Battles:** Workers are demanding ever-more in benefits. They insist on expensive packages that allow them to move retirement monies from job to job without penalties.
- **Finding Guidance:** Entrepreneurs can't find seasoned executives to mentor their company from startup to maturity.
- **The Skill Shortage:** Many high school grads lack the communications and analytical skills to do even simple jobs such as answer the phones or run the supply room. —AIMEE L. STERN

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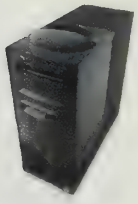

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Do the Right Thing

A cause-related marketing campaign can help your company break away from the pack

HOW CAN A little bank with only 27 employees stand out from giant competitors in a crowded market? That's the problem that faced Stephen Lange Ranzini, president of University Bank, when he moved operations from Sault Ste. Marie, Mich., downstate to Ann Arbor three years ago. His answer: Show a little heart.

Right away, Ranzini launched a widely advertised program called Kids B'Cause, which gives a portion of every transaction—$5 for each new checking account, for instance—to local charities such as Safe House, a battered women's shelter, and the Family Literacy Project. Last year, the campaign, a cornerstone of the bank's marketing strategy, raised about $10,000 for four grateful charities. "In banking, you have to make people feel good about you before they do business with you," says Ranzini.

So it goes in cause-related marketing, the growing practice of designating a portion of sales or profits to a nonprofit cause—and aggressively publicizing it. While big corporations, such as American Express and Target Stores, pioneered the concept in the mid-'80s, increasingly, small companies are getting involved, too, says William Chipps, consultant with IEG Valuation Service, a Chicago market research firm. IEG, which tracks overall cause-related spending, projects companies will spend $700 million this year, up from $262 million in 1992.

Proponents say such programs can generate good PR by communicating your company's values. There's a bottom-line benefit, too: According to the 1999 Cone/Roper study of Cause Branding, 65% of consumers say they would probably switch brands to one that benefits a good cause if price and quality were equal.

Of course, the public will see through a shoddy attempt at headline-grabbing and will be suspicious of vague terms. A successful campaign chooses its cause carefully and spells out its purpose and the percentage to be donated.

Last summer, Greg McVey, CEO of Primordial LLC, an eight-employee toy company in San Francisco, teamed up with 1,900 Denny's restaurants and the charity Save the Children to promote his toy called Zoob. Denny's customers bought more than a million boxes of Zoob, resulting in a $10,000 donation to the charity and plenty of buzz for Primordial. "Tying in with a national charity and a national chain gave us our 15 minutes of national fame and also demonstrates that we care about families and children," says McVey. It's a case of doing good to help your company do well. —AIMEE L. STERN

For more successful cause-related marketing, click on Online Extras at **frontier.businessweek.com**

Smart Answers

Q: My husband and I plan to open up an e-commerce Web site. How can we accept credit-card payments?
—C.I., Lakehills, Tex.

A: If you're just starting up and need to get online fast, sites such as www.bigstep.com, Yahoo! Store (store.yahoo.com), iCat (www.icat.com), and Excite@Home (www.excite.com/storebuilder) sell e-commerce packages that include credit-card processing. If you want to add e-commerce to an existing Web site, E-Commerce Exchange (www.ecx.com) and CC-Now (www.ccnow.com) will help you apply for a bank merchant account, or become your online retailer, processing your sales through their own master merchant accounts.

Fee structures vary widely. Some sites charge monthly hosting fees ($39 to $199 a month), per-transaction fees (10¢ to $3), and setup ($95 to $295), while others charge flat monthly rates with free setup. Still others take a percentage of sales. Which one is best depends on your business model and priorities. —KAREN E. KLEIN

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Windfall Profits

It started as a joke. But Linda Katz's tumbleweed on-the-Web startup isn't just in Kansas anymore

FOLLOW THE YELLOW WEED ROAD: Linda Katz (second from right), her sister, and nieces harvest genuine tumbleweed to sell to Western fans from Alaska to Japan

THE LOWLY TUMBLEWEED is a nuisance to most inhabitants of Western Kansas. The Russian thistle bushes are everywhere. They clog drainage ditches, pile up against fencerows, and have even been known to cause traffic accidents.

But the weed is blowing only good fortune to Linda Katz of Garden City, Kan., who is proving that you really can sell almost anything on the Internet. You see, this former real estate agent, who's married to a roofer, sells tumbleweed over the Web.

"It all started as a joke," says Katz, 49. She asked her son to build her a family Web page so she could communicate with friends and gave it the tongue-in-cheek name Prairie Tumbleweed Farm. Never mind that she didn't even live on a farm, but in a subdivision. Never mind that you can't cultivate tumbleweed, which spreads its seeds as it tumbles in the wind. For authenticity's sake, Katz added a price list ($35 for a big weed, $25 for a midsize one, $20 for the small economy model). And she guaranteed that each tumbleweed was "Y2K compliant" and quality-tested to tumble in even the gentlest of breezes.

Remember, Katz wasn't looking for business, but it found her all the same, thanks to the power of Web search engines. Orders started to pour in from all the places where people love Hollywood Westerns: Alaska, Austria, Britain, Hong Kong, India. Japanese customers proved so eager that she has added a section to her Web site in Japanese. Movie and TV production companies in Britain, Finland, and the U.S. have ordered tumbleweed for props, too, including a $1,000 order for the children's show *Barney & Friends*. A scientist from New Mexico wanted tumbleweed for research purposes. Many of Katz's newfound customers use tumbleweed to decorate their homes, even in lieu of the traditional Christmas tree.

During Katz's first two months on the Web, the site (www.prairietumbleweed farm.com) logged 2,000 visitors. By mid-January, the number had grown to more than 56,000. Katz says she's making about 30 tumbleweed sales a week, which suggests revenues of about $40,000 a year.

That may not sound like much, but neither are her costs. She fills orders by grazing Kansas fence lines for tumbleweed and buys her mailing boxes in bulk lots. For labor, Katz uses her five nieces and nephews (aged 11 to 19) to help collect the stuff, and she gives them a share of the profits.

"Isn't the Internet a wonderful thing?" says Katz. —ROBERT DEITZ

For more entrepreneur files, click on Online Extras at **frontier.businessweek.com**

Confusion.com

Easy enough to find the Small Business Administration's Web site, right? Type in www.sba.gov, and there you are. But what if you write www.sba.com instead? You'll wind up at the Web site of Smith, Bucklin & Associates, a 700-employee trade-association management firm in Chicago. And you won't be the first.

It's not a case of deliberate cybersquatting. Founded in 1949, the firm is known in its field as SBA, so logically, says Will Thomas, vice-president for Internet services, it chose www.sba.com for its Web address. Before long, the firm got some unexpected e-mails, posing such questions as "How do I get a small-business loan?" Thomas felt obliged to add a hyperlink to the government's small-biz site. Of Smith Bucklin's 40,000 to 50,000 visitors per month, about 20% want the federal SBA, which logs about 700,000 visitors weekly. Still, there's ample room for cyber-confusion, with www.sba.net, an education company's site written in Dutch, and www.sba.org, the Southern Bakers Assn.'s Web sites. The bakers get about 15 e-mails a day from small-biz owners. At least they're all talking about dough. —AIMEE L. STERN

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Return to Spender

Do you get the biggest bang for your tech buck? Find out by calculating your return on investment

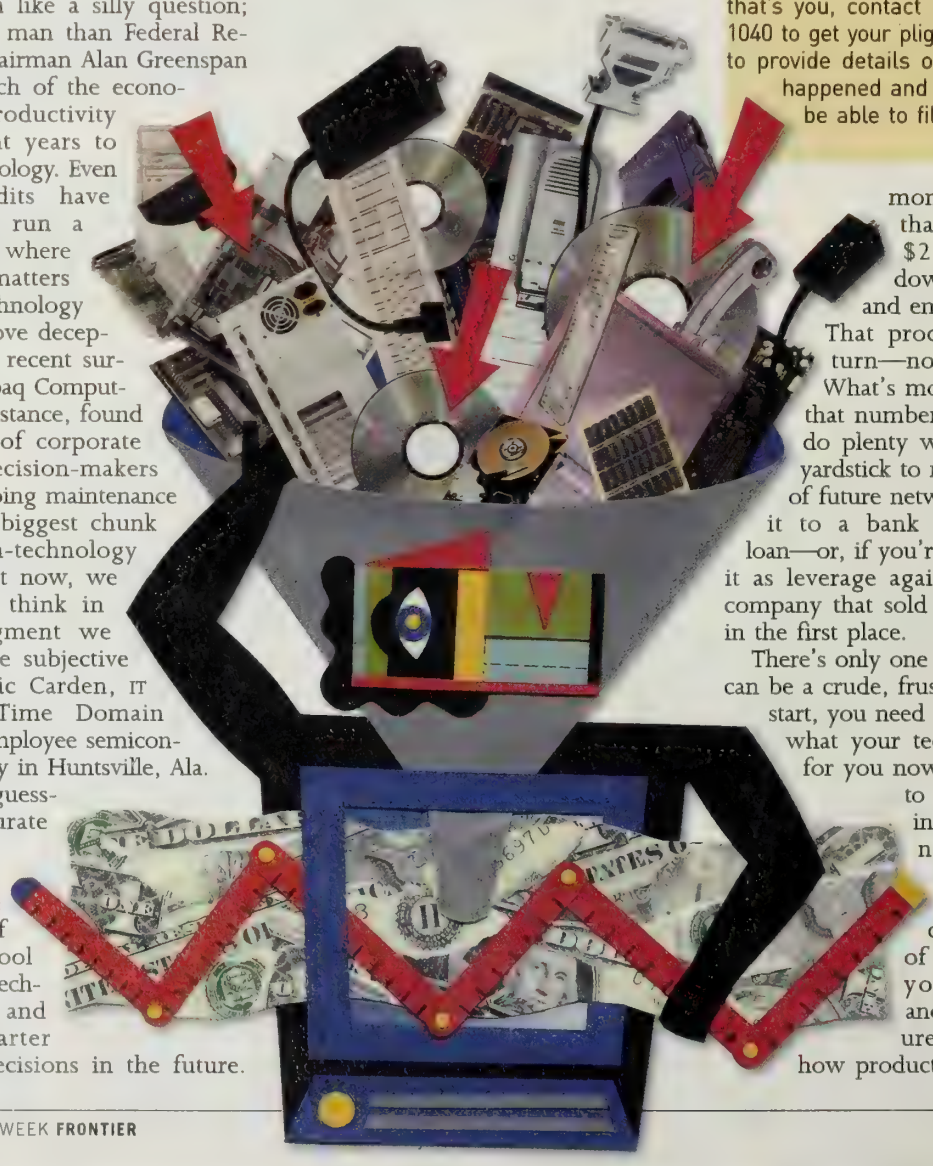
IT'S REALITY-CHECK time here at frontier. We devote a lot of attention to information technology, trying to give our readers practical advice on the latest systems and office gear. But in our enthusiasm for technology that gets the job done, we sometimes lose sight of an important factor: Namely, where's the bang for the buck? Once you've forked over tens of thousands of dollars, retrained staff, and suffered through the inevitable system crashes, how do you know if your investment paid off?

It may seem like a silly question; no less a wise man than Federal Reserve Board Chairman Alan Greenspan has linked much of the economy-wide productivity gains of recent years to computer technology. Even so, the pundits have probably not run a small company where every penny matters and where technology upkeep can prove deceptively costly. A recent survey from Compaq Computer Corp., for instance, found that only 4% of corporate technology decision-makers knew that ongoing maintenance consumes the biggest chunk of information-technology budgets. "Right now, we buy what we think in our best judgment we need. We make subjective calls," says Eric Carden, IT manager at Time Domain Corp., a 100-employee semiconductor company in Huntsville, Ala.

To cut the guesswork, an accurate return-on-investment (ROI) number can be an important, if overlooked, tool for controlling technology costs and making smarter tech-buying decisions in the future. Especially as technology gets smothered in hype, "it's good hygiene to constantly ask yourself: What's my return?" says Mark Silvestri, president of technology consultancy Lifecycle Solutions in Avon, Mass.

What exactly is ROI? Think of it as a simple fraction, with the dollar-for-dollar benefits of technology (in cost savings or new profits) on the top, and the amount you spent to get those benefits on the bottom. Suppose you ponied up $10,000 to speed up your local area network, and after 18 months, you estimate that you saved $20,000 by cutting down on photocopies and employee downtime. That produces a 100% return—not a bad payoff. What's more, once you have that number in hand, you can do plenty with it: Use it as a yardstick to monitor the impact of future network upgrades, take it to a bank to justify a new loan—or, if you're disappointed, use it as leverage against the person or company that sold you the new gear in the first place.

There's only one rub. Measuring ROI can be a crude, frustrating process. To start, you need a baseline, gauging what your technology is doing for you now and what it costs to maintain. After you install the new technology—whether it's a network, servers, or an industry-specific piece of equipment—you'll have to take another set of measurements to show how productivity has changed.



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The Y2K Bug Ate My Return...

Did you have yearend glitches? Relax, you don't have to admit it in public. But if you tell the Internal Revenue Service, they may cut you some slack on filing. According to CCH Inc. in Riverwoods, Ill., a publisher of tax law material, the IRS will waive penalties and interest on late returns caused by an unavoidable Y2K breakdown. That assumes you took reasonable steps to detect and correct the problem, such as running a Y2K scan of your computer beforehand and asking your financial institution if it was prepared. The waiver covers inability to file or failure to make payments on time. If that's you, contact the IRS at 800 829-1040 to get your plight on record. Expect to provide details on how the problem happened and when you expect to be able to file.

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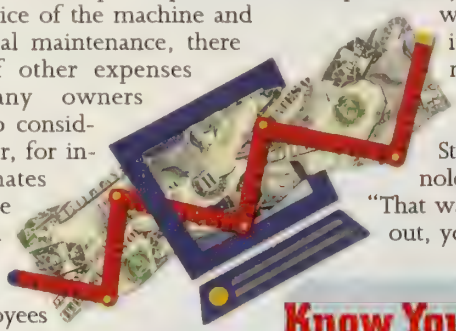
It can be time-consuming, especially when you're stuck quantifying such "soft" attributes as how an improved work environment helps retain valued employees. "You have to nurture and harvest the numbers," warns Howard Rubin, a research fellow at Meta Group in Stamford, Conn.

Many companies begin their ROI quest with a concept called "total cost of ownership," which seeks to measure all the expenses, both human and technical, behind a given technology (table). "Business owners don't understand what they're getting and why it costs so much," says Jeffrey Owen, an analyst at Gartner Group Inc. While you may think, for instance, that the cost of a simple desktop computer is fixed to the price of the machine and some occasional maintenance, there are a host of other expenses many company owners don't take into consideration. Gartner, for instance, estimates that 14% of the yearly cost of a PC gets sucked into the "futz factor"—employees wasting time on games and personal e-mail. And don't forget the costly downtime of a crash-prone server or a printer that's perpetually jammed. It all adds up: Gartner estimates the true annual cost of a PC at $9,000 to $12,000.



Once you've established baseline costs, you'll have to translate them into a productivity level. For manufacturers, this is fairly simple: They produce so many widgets per week, or make so much profit per item. For service companies, the calculation gets murkier. How does a design firm measure its productivity? Not just in the number of designs it completes, but also in customer satisfaction, speed to market, and employees' quality of life.

To gauge these effects, some big companies (small companies are noticeably absent from the ROI literature) take both employee and customer surveys in hopes of quantifying output. They also use old-fashioned stopwatches to monitor the time it takes to complete a given task—say, process a purchase order or download an intranet file. One less costly alternative is to survey your employees, asking them to describe briefly what they do with their time and what they produce. The answers won't be entirely accurate, but you'll get some sense of technology's effect on productivity.

After the new technology is installed, you'll want to take the same measurements again, generally at six-month intervals. As employees get familiar with their new tools, you should see an increase in productivity.

To get the most out of the ROI numbers, you may want to try an incremental tech-spending approach: paying piecemeal for small, self-contained units that are part of a bigger project. Monitoring the ROI on each piece gives you more control over budgets that threaten to spin out of control. "You can make each part a major checkpoint and ask whether it was worth it," says Jerry N. Luftman, executive director of information-management programs at Stevens Institute of Technology in Hoboken, N.J. "That way, if you want to pull out, you can."

These ROI calculations need not be limited to computer technology, of course. You may find, for instance, that a truck to speed distribution is a more productive investment than expanding your data-processing equipment. "You never know how emerging technologies are really going to be used, or even their full benefits," says Luftman.

Understanding ROI is also good insurance against the cost of technology consultants, who are profiting from businesses' fear of being left behind in the Digital Age. "Technologists, in or outside of your company, are not going to worry about costs," says Lenny Liebmann, a technology author. "So you'd better."

Even if you don't want to do the dirty work, asking for an ROI number may be one of the best, and cheapest, smoke detectors that money can buy. —DENNIS BERMAN

Learn more about your return on tech spending at **frontier@businessweek.com**

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8,000	INSTALLATION	Four-day project, including removal of old network
3,000	TRAINING	Week of on-site training, computer tutorials
35,000	SUPPORT	Three-year maintenance contract, cost of downtime and data loss
21,000	MAINTENANCE	Cost of network transition, hardware/software updates, disaster recovery costs
20,000	FUTZ FACTOR	Time wasted surfing Internet over new network connections
TOTAL $125,000		

RETURN		
$ 60,000	LABOR	Savings from cutting secretarial help by ½ total hours
15,000	MATERIALS	Reduced costs of paper and photocopies
108,000	EFFICIENCY	Eliminating time wasted by inefficient document sharing (5 hrs. per mo. per employee @ $20/hr. average wage)
72,000	INCREASED OUTPUT	Net profits based on using saved time for additional projects
TOTAL $255,000		

NET RETURN: 104%

DATA: BW, GARTNER GROUP

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SPECIAL REPORT

Do-It-Yourself Law

Who needs a lawyer? You do—but not as much as you think

DOUGLAS CLARK, A VETERAN INVENTOR, is the do-it-yourself type. When his garage door stuck, he made an opener from spare parts. When he dreamed up a musical clock for the blind, he made a prototype in his basement. And when he wanted to get patents on his inventions, he picked up a book called *Patent It Yourself* (Nolo Press) and did what the title advises. Well, almost. Careful scientist that he is, he also hired its author, former carpooling buddy David Pressman, to review his work—and Pressman usually sent him back to the drawing board. "Each one took a couple of drafts to get right," says Clark. But he's not complaining. By limiting a lawyer's involvement to a few hours on each of his 11 patents, Clark has saved $50,000 to $60,000 over a 20-year career.

From Clark's perspective, Pressman, an intellectual-property lawyer, has been acting as a coach. As Pressman sees it, he has been "unbundling" his services—that is, selling them à la carte. Either way, it's a cost-cutting trend that both small-business owners and small-firm lawyers are embracing.

Can you really act as your own lawyer? As an attorney might say, it depends on what you mean by "lawyer"—and by "act." No, you can't litigate in federal court. But you can go to small claims court (story, page F.28) and collect bad debts. You can read up on self-help law and draft routine documents (box, page F.25). And you can find lawyers who unbundle their services and treat you as a partner. It's a buyer's market. Just ask.

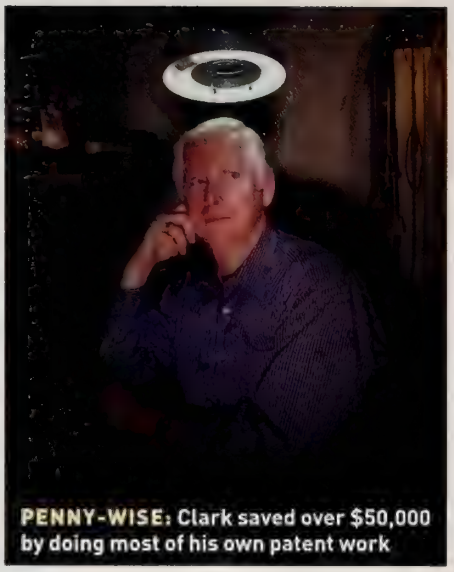
It works like this: At an initial meeting, the lawyer breaks down the tasks involved in a particular job—say, forming a limited-liability company—and tells clients what they can probably do on their own. Then they divide the work. In theory, the lawyer gets a client who otherwise couldn't afford professional help, while the client gets "to pick a Chevy instead of choosing

by Stephanie B. Goldberg

PETER HORVATH

between a Cadillac and riding the bus," says Forrest S. Mosten, a Los Angeles lawyer-mediator who pioneered unbundled services in the 1980s.

In practice, self-help can demand a lot of time as well as willingness to hit the books. Clark's patent applications each took him about 40 hours. "Often, clients get a taste and just decide, 'I'd rather let my lawyer do the whole thing,' " says Mosten, who maintains an on-site self-help law library. While just 15% of law clients request unbundled services, he says, about 50% of clients involved in mediation want to do some of their own work. "People who seek mediation ordinarily expect to do it themselves and only later realize that they'd benefit from having a lawyer examine their arguments," says Mosten. Oddly enough, unbundled services have become more profitable. "People are much happier and more willing to pay when they control their own destiny," observes Mosten.



PENNY-WISE: Clark saved over $50,000 by doing most of his own patent work

Hands-on. Surely that's what appeals to a lot of entrepreneurs about self-help law. They don't want to be buffaloed. They want to sound knowledgeable when talking to lawyers and resent paying $250 an hour for an explanation of business law basics. Self-help attracts people who are "very hands-on," who "want to know everything about every aspect of the business," says Ralph "Jake" Warner, the Berkeley (Calif.) lawyer-entrepreneur whose Nolo Press began the legal self-help revolution (story, page F.24).

Of course, no one—not even Nolo—suggests that sweat equity can trump a lawyer's skill on complicated problems. Fred S. Steingold, an Ann Arbor (Mich.) attorney, has written three books on business law for Nolo and is careful to tell readers how far they can go on their own.

The general rule, much like home rehabbing, is that complexity and customization require a professional's touch. The simplest partnership deal or incorporation is pretty much a fill-in-the-blanks affair. But if you want specialized features, such as a stock-option plan, indemnifications for your directors, or a buy-sell agreement, you're well advised to see a lawyer. Same thing with leasing: You can negotiate a lease yourself and use boilerplate if you're making a modest investment, but longer leases for larger amounts of space require extensive customization, says Warner. And always get a lawyer if litigation is possible, such as when firing a worker in a protected category or fighting over a contract.

The smartest do-it-yourselfer knows when he's in over his head. Take David Landau, 34, a former teacher who armed himself with $200 worth of self-help titles when he launched his Chicago marketing firm seven months ago. It wasn't long before he needed to draft a complicated—and critical—contract not covered by IDG Books Worldwide's *Business Contract Kit for Dummies*. He also decided he was too busy to handle his own incorporation. When lawyers quoted fees for both tasks ranging from $800 to $5,000, Landau felt "totally helpless." So he kept looking until he found Northwestern University School of Law's Small Business Opportunity Clinic, where law students provide services at bargain rates. Landau expects to pay $200. Still, he has no regrets about his attempts at lawyering. "Knowing the law really helps in business negotiations," he says, regardless of who writes the contract.

What if your self-help project goes awry? Ironically, you can sue the lawyer who reviewed your work. Courts have held lawyers liable for clients' mistakes if they failed to spell out in advance—and in writing—the scope of their counsel. That's the beauty of unbundling: You have guidance to get the job done right and recourse if something goes wrong. Even a lawyer couldn't do better.

To learn more about representing yourself in mediation, click Online Extras at **frontier.businessweek.com**

A Fool for a Client?

Do-it-yourself law can be easy, iffy, or downright dangerous. Here are some examples of each category

	GREEN LIGHT	YELLOW LIGHT	RED LIGHT
EMPLOYMENT LAW:	Fire someone not in a protected category	Prepare an employee handbook	Handle sexual-harassment charges
CONTRACT LAW:	Contract to buy or lease equipment	Contract to sell goods or services	Contract to buy or sell a business
REAL ESTATE:	Evict tenants	Do a simple modification of a commercial lease (i.e., add the right to a parking space)	Do extensive modification of commercial lease
BUSINESS DISPUTES:	Go to small claims court	Go through mediation for disputes under $5,000	Evaluate legal claims or threats of lawsuits above $5,000

DATA: BW

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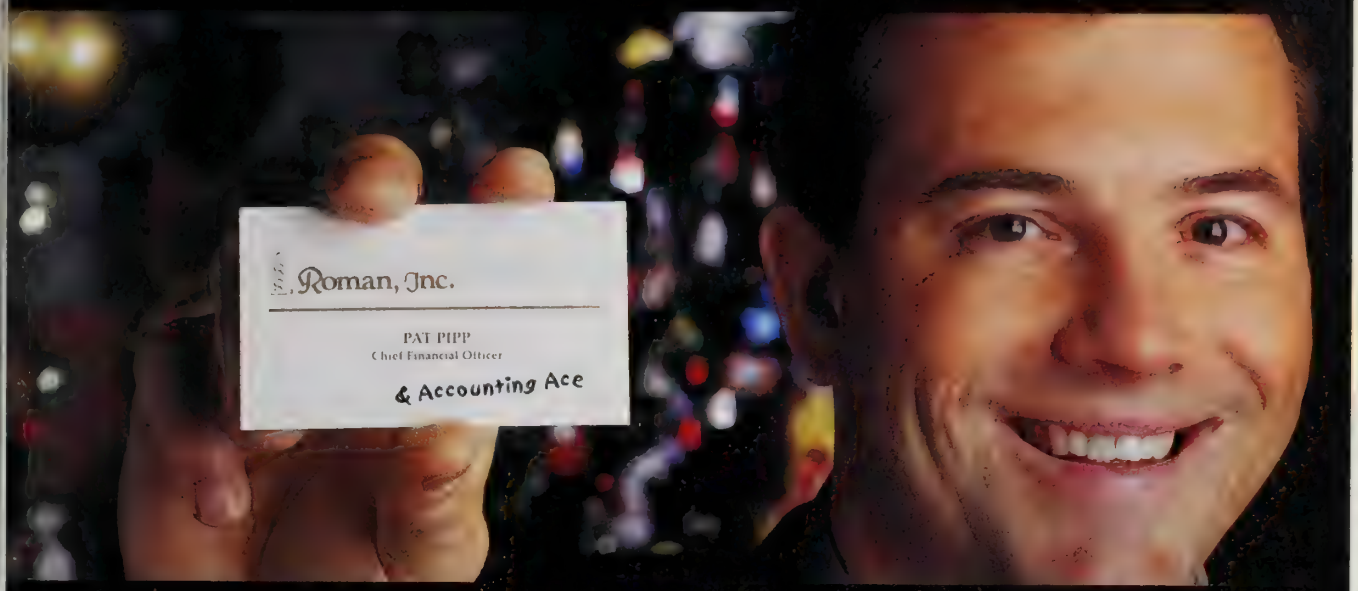

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SPECIAL REPORT

Success at Nolo Press

A Berkeley upstart of the '70s becomes the guru of legal self-help

by Stephanie B. Goldberg & Gary Poole

SPARE A FIN? Warner, owner of $9.5 million Nolo, tests the waters of the Web

IT'S THE FORMULA for California's success-story cliché: Take an iconoclastic entrepreneur, add a garage, stir in some zeal, sprinkle imagination—and presto, out comes a world-changing technology. That's almost the story of Ralph "Jake" Warner, the founder and president of Berkeley-based Nolo.com Inc., the nation's largest publisher of legal self-help books. Well, O.K.—Warner launched the company from his attic, and, it being 1971, the motive was more politics than profit, and he didn't invent a technology. But the product sure changed at least a corner of the world: Warner brought the consumer movement to the hidebound practice of law. His little startup smashed the Establishment firms' lock on legal advice to become a $9.5 million company over the next 28 years, first by telling ordinary folk how to avoid lawyers for routine work such as wills and more recently by doing the same for small-business owners. Meanwhile, Warner and his team have maintained their focus and philosophy with remarkable consistency, even as Nolo moves onto the Web and Warner, its sole owner, grows more intrigued by the idea of major expansion.

Swimming with sharks. Today, with myriad self-help Web sites and books available, the do-it-yourself concept seems like a no-brainer. But in 1971, drafting your own partnership agreement made as much sense to most people as taking out your own appendix. Warner, a former Legal Aid lawyer from Berkeley, knew better—most legal work isn't surgery. So Warner started with a book on do-it-yourself divorce that he tried to sell to New York publishers. "I kept getting blank stares," he recalls. "One guy thought his brother-in-law was playing a practical joke."

Instead of giving up, Warner went home to found his own company, Nolo Press, now a publisher of books, software, and a Web site that draws 14,000 visitors a day.

As a business, Nolo is something of an anomaly, trying to stay true to its '60s roots while gearing up for Net-paced growth. Walk through Nolo's offices, a converted clock factory in what was once an industrial neighborhood, and you'll find walls covered with posters depicting lawyers as sharks—the company logo. You'll also find the salaries of all 80 employees posted in the lobby, including Warner's $110,000 compensation. Meetings are run like therapy

sessions; at Nolo feelings count. "There's a lot of love in our company," says attorney Stephen R. Elias, Nolo's associate publisher and one of the original crew. But there's also a work ethic. Its 150 titles on average take three years of research and writing and then undergo review by 10 editor-lawyers. The company has never been sued—and seldom been challenged—on accuracy.

After Nolo weathered attacks from the organized bar in the '70s, resistance melted. Lawyers and law libraries are among its customers, and competitors include the American Bar Assn., which has published its own line of Nolo-style self-help tomes. Others gunning for Nolo's software business include Block Financial Corp. of Kansas City, Mo., under the Kiplinger name, and Parsons Technology Inc. of Hiawatha, Iowa, using the Quicken moniker (table). But Warner thinks Nolo knows its audience best. It is "the National Public Radio crowd" he says. "These are people who find it reasonable to read up on law for a couple of hours and then only buy the legal services they need."

New packages. The company approaches law much as Bob Vila demystified home renovation and Charles Schwab online investing—by translating arcana into plain English and breaking things down step by step. While Nolo's biggest seller is its WillMaker software—a hit since it was introduced in 1985—business titles have been an important part of the list since the early 1980s. The leading business book is *The Employer's Legal Handbook*, which, like most Nolo books, comes, with forms, on a diskette, although the book can also be downloaded from the Web site. Finding new ways to package the product is far from a gimmick, Warner points out. "The thing about legal problems is that people need answers right now," he says. Ted Weinstein, marketing and development vice-president, predicts market research will start playing a key role in a company that has tended to play its hunches. "We don't want to end up like political candidates, but it's really important to listen to our audience."

That's one reason why retooling Nolo into a Web content-provider is a priority. The company recently renamed itself Nolo.com Inc. On the horizon are services that let users draft documents and store records on its Web site. Web sales, which have doubled every year since the site's 1993 launch, now account for 15% of profits. Licensing its content is just starting to generate revenue, says Weinstein. Agreements were recently signed with Yahoo! Inc. and boomer-oriented Third Age Media Inc., while 65 other deals are in development—mainly with sites focused on small business, personal finance, and real estate. On the software side, Microsoft Corp. has licensed some Nolo products for the small-business version of Office 2000. Book sales, on the other hand, have been fairly flat for the past two years, but Warner is optimistic—and not just because he now has a marketing director. "The Web gives us a chance to help more people," he says. "It's really an obvious business choice for us." And an inescapable one. As Web-based rivals proliferate, Warner intends to remain the preeminent purveyor of legal self-help. After a career of shark-baiting, he's not about to get swallowed.

Want to learn how to do your own legal research online? Click Online Extras at **frontier.businessweek.com**

A Law Unto Yourself

You'll never litigate the big ones, but some legal work is well within the capabilities of an ordinary entrepreneur. Here are some of the better resources:

Web Sites:

- **CCH Business Owner's Toolkit** (www.businessweek.com/smallbiz/lifestages/guidebook.htm): Covers startups, business planning, and personnel management for companies of up to 10 employees. "Powertools" section (requires registration and fee) has Lexis, trademark, copyright, and patent databases. Sample letters, contracts, forms, policies, checklists available.
- **FindLaw** (www.findlaw.com): A valuable legal research portal, although resources for small business are limited. Good for topical searches and locating state and federal law quickly.
- **LawGuru** (www.lawguru.com): Has searchable library of 10,000 questions and answers in 25 legal categories; also extensive resources for searching state and federal law, plus chat room and topical legal mailing lists.
- **Nolo** (www.nolo.com): Read up on small-business law, employment matters, and intellectual property. Detailed sections on startups, taxes, and home-based businesses. Companion products—legal forms, books, and software—available for download. Easy to navigate and free.

Lawyer-in-a-Box:

These kits all come with elaborate disclaimers that they are not meant to take the place of legal advice—and they don't. The documents are generic and aren't tailored to reflect state law or your particular situation. Still, if you want your information from a brand name...

- **Kiplinger's Small Business Attorney '99** (Block Financial): Has 81 legal documents in eight areas—technology, corporate, sales and marketing, real estate, sale and purchase of goods, personnel, power of attorney, and financial. Also includes updated three-volume business-law library. Rated a best buy by HALT, a nonprofit group that lobbies for public access to the legal system. $19.95. (800) 813-7940.
- **Small Business Legal Pro 3.0** (Nolo): A library of six Nolo self-help books for small businesses, each of which includes a CD-ROM. Includes 136 forms and sample termination and employment letters, sexual-harassment policies, correspondence to IRS, etc. Also rated a HALT best buy. $79.95. (800) 992-6656.
- **Quicken Business Law Partner 4.0** (Parsons Technology): Interactive features suggest which forms are best suited to your needs. The software contains more than 100 documents, government forms, and worksheets, plus informational articles. HALT rates this product a good value. $29.95. (800) 779-6000.

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SPECIAL REPORT

Staking Small Claims

How to collect from deadbeats without making a federal case of it

by Stephanie B. Goldberg

STEVE CHATOT CONSIDERS HIMSELF a winner in small claims court despite having never been in front of a judge. As the credit manager for Knapp Supply Co., a wholesaler of plumbing fixtures in Muncie, Ind., Chatot walked away happy from a half-dozen collection claims in the past year. How did he do it? The cases always settle, often during a pretrial conference with a court clerk. "Going to small claims court doesn't shut down the lines of communication," he says. Far from it—there's nothing like receiving a summons in the mail to make recalcitrant customers return your phone calls. As for cost-effectiveness, Chatot estimates it has taken no more than an hour per account to recover amounts up to the jurisdictional limits of $1,500—an impressive return on investment in anybody's book.

Small claims courts have an image problem. They aren't just for folks battling over rent deposits or out-of-focus wedding photos anymore. Over the past five years, procedures in most courts have been streamlined, while the amount of potential damages has risen. As a result, these low-level venues are attractive tools for recovering bad debt. And rocket science it isn't: Most suits are initiated simply by filing a standard form in court and serving the defendant via registered mail. On the horizon is online filing, already available to small-claims litigants in Marion County, Ind., and Pima County, Ariz. In this customer-friendly court, you'll often find staff attorneys

› show litigants the ropes and me-
iators to give them one last chance
› work things out.

ow, try to collect. What's it worth? Most states cap damages in small claims court at $3,000 to $5,000, says James C. Turner, executive director of HALT, a Washington-based advocacy group whose acronym stands for Help Abolish Legal Tyranny. An exception is Tennessee, where the ceiling ranges from $15,000 in Nashville to $25,000 in Memphis. (The reason, says Warner Massell, General Sessions Court administrator for Nashville County, is simple: Keeping cases in small claims court means the state can avoid creating new district-court judgeships.)

Other rules also vary widely. Depending on the jurisdiction, you might be permitted to have an attorney present, to sue to get an injunction, or to appeal the verdict. Some states insist on mediation before a trial date, some don't. Business owners should be aware that some states require corporations to be represented by counsel, whose hefty fees might top the amount at stake. (To find your state's procedures, visit: consumer.findlaw.com/lawyers/small.html.)

Finally, don't forget that winning a judgment isn't the same as collecting on it. If you're lucky, your state allows judges to order payment directly to the court under the threat of contempt. In most places, however, you're on your own. And if a polite request fails, you'll need to launch what is essentially a second lawsuit to put a lien on your opponent's accounts or property, or to garnish wages. If you want to do it yourself, be prepared to spend lots of time learning how to locate assets and follow court procedures. This is a good deal trickier than the suit itself, so it's usually wise to use a collections specialist. While they take 30% to 50% of the return, they are more likely to recover assets and do it more quickly. Some, such as Continental Recovery Services of Simi Valley, Calif., conduct asset searches of prospective defendants before clients even file a suit. "Why throw good money after bad?" says Marketing Vice-President Phillip Terry. For a 30% cut of the amount recovered, the company will start lien proceedings, serving the defendant and filing the necessary court papers. With a successful recovery rate on judgments of 60% to 70%, it beats letting deadbeats off the hook. Staking a small claim is still better than no claim at all.

NO NONSENSE: The biggest mistake entrepreneurs make in small claims court is forgetting that this is one place where they have to pay attention to the rules, says Judge John Smiley

For more tips on how you can win in small claims court, click Online Extras at **frontier.businessweek.com**

Law Review

You don't have to be a legal eagle to go to small claims court, but a little knowledge can go a long way. Here are steps experts recommend:

GET THE FACTS: The most labor-intensive part of the case is gathering evidence. Collect as many relevant documents as possible and organize them carefully.

BE PREPARED: Polish your presentation by rehearsing your arguments before friends or family members and let them ask the toughest questions they can come up with.

PLAY TO THE BENCH: Most judges are pressed for time and run a tight ship. Be ready to state in a finely tuned sentence or two what you want and why you think you should get it. Don't get flummoxed if the judge interrupts. Just listen carefully.

PROCEDURE COUNTS: Read the rules and watch a few trials before you take your case to court. "If the law states that partners have to be present, it won't do to send a secretary," says Judge John R. Smiley, a lecturer on small claims at the National College for Judicial Education in Reno, Nev.

Site Seeing

Lost in cyberspace? You can search a zillion Web sites for information— or just click on these

by Karen C. Cheney

SURE, THE WEB HAS BECOME one of the most important small-business tools around. But how useful is this: A search for "small business" on Yahoo! yields more than 7,400 entries. It's even worse on HotBot, which stops counting after the first million hits. If it took 25 seconds to visit each one and you worked 10 hours a day, you'd need 2½ years to sort out the ones truly worth a bookmark.

But we've saved you the trouble. We asked dozens of entrepreneurs and analysts to steer us to the most useful sites for small business. It's a surprising list, in part because not every one is designed for small companies. We chose not to focus on the "free" e-commerce sites and other outfits mainly interested in selling you something. Most of those are still works-in-progress. And the fact is, most small-business owners use the Web for research more than anything else (ranking No. 2 in a poll by Dun & Bradstreet, after e-mail, and No. 1 according to pollsters at Yankelovich Partners). With that in mind, we concentrated on sites that provide in-depth information at little or no cost on specialized business topics. Here's what came to the top:

GOING GLOBAL

If you're interested in expanding abroad, set a course for **www.exporthotline.com**, run by International Strategies Inc. in Boston, an international business information service. Targeted at companies with annual revenues of $25 million or less, it offers 6,000 detailed market research reports on 80 countries. You'll find information on shipping and transportation, import and export risks, best export prospects, coverage of specific industries, and contact information in foreign governments and U. S. consulates. Read the reports for free online or print out up to 10 for $35.

HUMAN RESOURCES

The Society for Human Resource Managers (**www.shrm.org**) offers a site packed with data on workplace issues. Daily news items keep you current on such issues as work visas and sexual harassment rulings. You can also read current and back issues of the monthly *HR Magazine* for articles on compensation, benefits, and diversity. But to gain full access to the surveys, employment outlooks, legislative updates, and performance evaluations online, you have to swallow the $160 membership fee.

WEB MARKETING

For tips and news on Internet marketing or e-commerce, Internet guru Ralph Wilson's Web site **www.wilsonweb.com** is a favorite spot among small-business owners. "It's bar none the best e-commerce resource out there," says Scott Segal, CEO of Internet startup iJewelry Inc. "You can find out about online merchandising, software, online security, and demographics." For full access to the site, you must pay an annual $49.95 subscription fee. But there's plenty there that's free, including the twice-monthly e-mail newsletter *Web Marketing Today*, which covers everything from site promotion to optimizing listings on search engines. Chat on Web marketing in the site's active forum or check out its Research Room for the largest collection of articles on e-commerce at any single site, with 43 categories including credit-card issues, Internet commerce law, and shopping-software technology.

SALES LEADS

If you want to develop direct mail and phone marketing lists, check out **www.infousa.com**, which

has a database of 11 million businesses and 115 million consumer households. It offers free addresses and telephone numbers but charges for complete background information and credit checks. "I can search by region and pare down my searches by sales volume or number of employees," says Beth Mitchell, marketing manager of LaserAll Corp. in Redwood City, Calif.

RAISING CAPITAL

Whether you're an established business or a startup, **BusinessFinance.com** has the connections. Punch in the details of your company and how much you need, and the free search engine finds prospective matches from about 3,000 sources. While 30% of the 7,500 searches conducted monthly on this site are for venture capital, BusinessFinance.com also tracks government, commercial, equipment financing, and commercial real estate funds. Download the site's free workbook for tips on what financiers want from you, how to give a presentation, and how to write a business plan. (Note: frontier uses a version of the company's financial engine on its own Web site.)

GOVERNMENT CONTRACTS

GovCon.com isn't free, and it's not cheap, but it has something you can't find anywhere else on the Web: an active contracts database, which shows when existing federal contracts come up for renewal and lets you plan way ahead. "The active contracts tell us where work already is, and lets us know when it will be re-bid one, two, or five years in advance," says Doug Allston, CEO of eight-employee Advantage Consulting in Annandale, Va. As a business development consultant, Allston uses GovCon to spot future business opportunities for his clients with various government agencies. Access to the database costs $345 a year—far less than you'd pay for a less up-to-date CD-ROM.

VIRTUAL LEARNING

Granted, **www.learn2.com** is an all-purpose distance learning site, but its largest offering is in the technical skills area with more than 250 interactive multimedia tutorials on business applications such as Office 2000 and Windows. You can learn to create a Web site or manage databases, too. You'll also find helpful courses on such nontechnical topics as conflict resolution, time management, and sales strategies. The courses offered are self-paced and priced as monthly subscriptions; fees vary depending on how long it takes you to complete a program. You can count on spending $20 to $100.

24-Hour, 24-Carat Help

SEGAL: Living the dot.com life at iJewelry

As CEO of newly minted iJewelry Inc., based in Troy, Mich., Scott Segal spends roughly one-third of every day on the Web, crawling for news and tips, checking out competitors, e-mailing colleagues, and making travel arrangements. Before launching his Web site, **iJewelry.com**, last September, he turned to **www.vcapital.com** for advice on raising money and PricewaterhouseCoopers' site, **www.pwcerc.com,** for help writing a business plan.

For information on Internet technologies and a ranking of the most frequented Web sites, he checks **www.mediametrix.com** regularly. The best way to network on the Web, he says, is to sign on to a mailing list, which he finds at the directory site, **www.liszt.com.** "I'm on an Internet marketing list—it's like a support group that's specialized," says Segal. "It's where you pick up the cutting-edge stuff and let people know what you're doing. Sometimes those people become clients."

How does a dot.com CEO relax? "I go to **www.uproar.com** to play bingo," he confesses. It's free—and you don't even need a polyester shirt.

For more useful Web sites to help your business, click on Online Extras at **frontier.businessweek.com**

Free Marketing Stats

If you surf over to **www.laserall.com,** the Web site of printer-servicing company LaserAll Corp. in Redwood City, Calif., you may get an uncanny feeling you're being watched. Within moments, you'll get a phone call from Beth Mitchell, marketing manager for the 50-employee, $5 million company. Mitchell, who telecommutes from her home in Half Moon Bay, Calif., doesn't have special powers—just a powerful software program that she picked up for free at **www.stattrack.com**. A marketing windfall, it tells her who the last 20 visitors were to her site, usually people seeking printer help. "It's like having a magnet to help you look for that needle in a haystack," says Mitchell.

MITCHELL: She knows when you've been visiting her site

Mitchell's other favorite site: **www.infousa.com** (see main story). "I can break down my searches by city, industry type, and size of company, and structure my searches to paper-intensive environments—that's critical, since we are a laser-printer servicing company," she says. Meanwhile, LaserAll's managers use **www.jobtrak.com** to fill positions and **www.expedia.com** to book flights and hotels. Coming soon: online customer service. This business may rely on ink and paper, but it's hooked on the Web.

Shadow of the Valley

Why would an old-line manufacturer dwell in a high-tech haven, with its traffic jams and pricey talent? Well...

BY KEVIN KELLY

EVERY NOW AND AGAIN I read the local papers and wonder: What the hell am I doing in the printing business? With all the cash sloshing around Silicon Valley—a mere 30-minute drive from my factory—why aren't I part of the dot.com madness?

Certainly, the case can be made that my proximity to the valley does me no good. My rent and labor costs are about 20% higher than my Southern California competitors, and high-tech companies make off with my best workers. Meanwhile, friends and neighbors who have cashed in on the boom buzz around in Porsches buying big estates. I have one family member whose personal net worth, at age 40, is several times larger than my entire company's, thanks to his recent initial public offering.

Yes, I'm living in the shadow of the valley, and it's easy to wallow in Silicon envy. I even sit back sometimes and fantasize about putting together a company I've dubbed packaging.com. The mood usually passes quickly, though. I know I have no talent for the dot.com world. I don't deeply understand the technology, and I have no path-breaking ideas to grab the attention of financiers on Palo Alto's Sand Hill Road. And besides, I actually enjoy the brick-and-mortar world, the whirl of our machinery, the fact that we make things.

Still, the infernal valley poses thorny business problems quite apart from my emotional state. For instance, I compete hard for skilled workers, especially maintenance mechanics and electricians. Last year, one of our electricians was offered 30% more money by a Sunnyvale company that did high-tech manufacturing for Intel and Hewlett-Packard. I was floored. While talented, this young man had little formal education and no background in computing. But we needed him, so we matched the offer and he stayed. However, I suspect at some point he'll get a deal that will price him beyond our reach.

Our location just north of San Jose poses problems for holding on to our less marketable employees as well. The housing market in the Bay Area is the hottest in the country, with prices up 20% annually over the past three years, thanks to the success of dot.com stock option programs. Although our average wage of $13.60 an hour puts us in the top echelon among manufacturers nationally, it isn't enough to buy a home around here. So, we've had to step in and help some employees with downpayments. And our company has joined two credit unions to help workers finance home and car purchases.

Human resources problems aren't the only ones posed by Silicon Valley. Rents in Union City, where our factory is located, have jumped 15% over the last year as computer and Internet companies have swung into the area. Traffic jams through San Jose sometimes hold up shipments to our customers in Salinas, 45 minutes south. And the local government often seems more inclined to woo clean dot.com startups than help us through the prosaic permit process to expand our less sightly operations, like our new, 30,000-square-foot warehouse.

Living in the dot.com universe does have some benefits. I think the area's high-tech expectations have made us more likely to adopt cutting-edge ideas. We were among the first in our business to have e-mail, a network, and to go online, all of which vastly improved our customer service. No doubt this will give us a leg up as our industry, like most others, consolidates. I also think we're more innovative in our approach to human resource issues because of the surrounding market. Hiring bonuses, housing loans, and tuition reimbursement have become part of our arsenal, just as they are part of Apple's or Intel's. As a result, I think we have the most talented collection of employees we've had in years.

It's also true that with a population of 5 million-plus, not everyone wants to, or can, work for the valley's high-tech companies. As many manufacturers have moved out of the area to save money, they've left a well-trained pool of workers. As one of the last package printers remaining in the area, that has left us in surprisingly good shape. Still, I can't stop wondering: Why can't an old-line manufacturer like us cash in on the IPO craze? Hey, we're a packaging company. Maybe we just need a new wrapper.

Kelly is an officer of Emerald Packaging in Union City, Calif. Do you have dot.com envy? E-mail us at **frontier@businessweek.com**

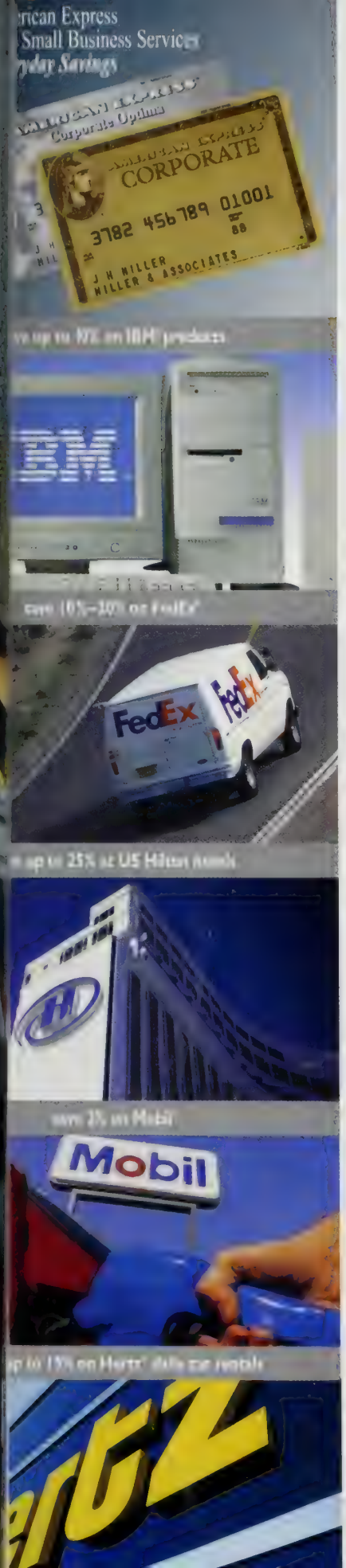
Software, Indy-500 style

Racer Robby McGehee's High-Tech Startup Corners Well

By reputation, they're vain, crude, and they gladly risk maiming themselves. Can a racecar driver be anything but a rube with a death wish? Consider 26-year-old Robby McGehee, a top-performing rookie in last year's high-profile Indy Racing League circuit. Sporting blond hair and wrap-around sunglasses, he looks every bit the testosterone-on-tires stereotype. But that's hardly the case. With a computer-science degree and a knack for entrepreneurship, McGehee also pilots eight-employee XRM Research, a fledgling software maker for the moving-and-storage industry.

It's a dizzying split existence for McGehee, who on weekends between January and October zips his 700-horsepower #55 around crowded Indy-class ovals. (A fifth-place finish at last year's Indianapolis 500 helped him earn Rookie of the Year runner-up honors.) During the week and the off-season, it's back to the spartan XRM offices in St. Louis, where for the past two years McGehee and partner Dale Buxton have been coding and marketing Move It!, a program designed to help the country's 6,000 moving agents better track their complicated web of inventory, transportation, and tax data. Debuting last December, sales of the $50,000 package are predicted to hit at least $1.5 million this year.

So why the musty moving industry? By chance, one of McGehee's first projects was building Web pages for ABC Moving & Storage Co., a St. Louis moving company. Dissatisfied with the software it used to track dispatching and billing, the company asked McGehee if he could do better. Bidding against 20 competitors, McGehee got the gig—as well as $250,000 in seed capital from a network of eight independent Atlas Van Line agents. "We didn't know if we could make it do what they wanted," jokes McGehee, "but we said yes, we could." Gentlemen, start your 18-wheelers. —DENNIS BERMAN



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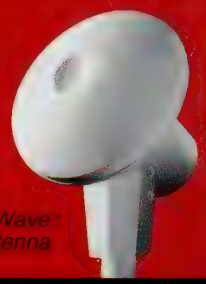

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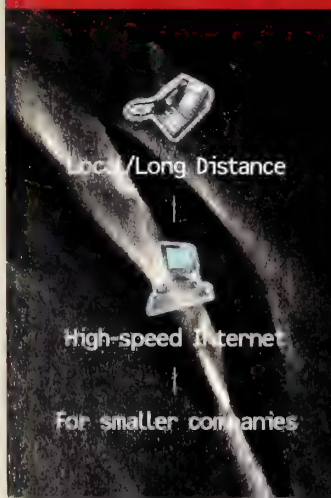

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P-AND-COMERS

I'VE LEFT A FEW DEAD BODIES'

elina Lo's in-your-face style gives Alteon its edge

When Selina Y. Lo was growing up in Hong Kong, she loved to play the Chinese game of mah-jongg with her family. But e stakes were high in the Lo house-ld: Losers had their hands slapped times by the winners. Now, as the e-president for marketing at net-rking equipment maker Alteon Web-stems Inc. in San Jose, Calif., Lo ces her business philosophy to those ildhood games. "I learned from mah-ngg that you can't leave your oppo-nts with even a breath because they ay be able to revive," Lo says. "You ve to take them out entirely."

Strong stuff, but apt for the trench arfare the 40-year-old Lo has fought nce helping launch Alteon in 1996. A -year veteran of the networking busi-ess, she has honed her in-your-face yle at three startups, earning a repu-tion as one of the smartest, toughest anagers in the industry. Lo's temper nd intensity are legendary: uring a product meeting last ll, recalls Alteon software ngineer John Taylor, she rang up yelling from her air, banged her fist on the able, and shoved a finger in is face after Taylor said he uldn't add a feature she had sked for. Taylor quickly re-nted. "I've left a few dead odies behind me," Lo crows.

DRIVE-BY SHOOTINGS." So far, er aggressiveness has served lteon nicely. Just two years fter shipping its first system, a special-zed computer that manages Internet raffic, the company is on track to sell 100 million worth of gear this year, up rom $42 million in 1999, predicts bro-erage Thomas Weisel Partners. Alteon hould turn a profit by the fourth quar-er. An initial public offering last Sep-ember raised $76 million, giving the ompany a current market capitalization f about $3.5 billion. Analysts give Lo nuch of the credit. "Alteon's biggest trength is Selina," says Peter Christy, vice-president of consultancy Internet Research Group.

Lo's gift is an uncanny ability to spot new markets, says Alteon CEO Dominic P. Orr. "She's as good as it gets at sniffing around the market and knowing where things are going," he says. But Lo is no seat-of-the-pants visionary: She spends 80% of her time meeting with customers to discern their needs.

Often that leads to hasty changes. Lo has reworked Alteon's product roadmap so many times on the fly—promising customers whatever she thinks they want—that Orr once threatened to take away her copy of Microsoft's PowerPoint software. She's notorious for returning from trips to bark out new marching orders to Alteon's engineering team, episodes known around Alteon as "drive-by shootings." Says Orr, an affable diplomat who must often mop up Lo's messes: "In the end, we're glad she pushes the envelope, because she gets results."

That's a fact not lost on rivals, some of whom "really detest" Lo, says her best friend and former boss Karen Mashima, now an executive at Lucent Technologies Inc. Competitors accuse Lo of stretching the truth with customers, promising features that don't yet exist, and even borrowing their ideas. Alteon, for instance, claimed to be first to market with an advanced feature last November, though rival F5 Networks Inc. had delivered the same capability months earlier. And competitors say Lo leaked news of Alteon's next model a year early to "freeze" the market for comparable gear. Lo denies any dishonesty but isn't apologetic about her hardball tactics. "I'm ruthless in using every bullet I have to gain a competitive advantage," she says.

Lo has been out to win from the start. After a five-year stint at Hewlett-Packard Co., her first job out of college, she joined startup Network Equipment Technologies in 1990 and helped create the first product that combined traditional telephone circuits with data networking—a precursor to today's Internet gear. Three years later, she co-founded Centillion Networks, where she

ONE STEP AHEAD
Lo's most powerful weapon, say analysts, is her ability to spot new markets

Lo will need all her engineering and marketing skills as Alteon enters a make-or-break period

helped invent a revolutionary data switch. Centillion was bought by Bay Networks—now part of Nortel Networks Corp.—for $142 million in 1995, and Lo pocketed several million dollars.

But her biggest breakthrough came at Alteon. The company was founded in mid-1996 by four engineers who dreamed up a way to speed the flow of data in and out of computer servers used for corporate and Internet applications. Orr, a top Bay Networks executive, signed on soon after as CEO. His first call was to Lo, tracking her down in Thailand, where she was getting daily massages on the beach after quitting Bay.

Competition was fierce from day one. That's when Lo's strong market sense kicked in. Customers such as Yahoo! and Concentric Network Corp. were hungry for a way to shift Net traffic from one server to another depending on the workload. Lo's solution: "Web switches" that handled traffic up to ten times more efficiently and lifted Alteon above the crowd. "She made lemonade out of lemons," says Tench Coxe, managing director of venture capital firm Sutter Hill Ventures and an Alteon director. Internet Research Group figures the market for such gear will be $425 million this year and nearly $1 billion by 2002. That opportunity has attracted a host of competitors such as ArrowPoint Communications, Foundry Networks, and the gorilla of the business, Cisco Systems.

HUGE PRESSURE. Can Lo keep Alteon ahead of the pack? The company is under huge pressure to deliver its next product, the Alteon 700 Series, which is six months late owing to problems with a custom-designed chip. That's one big reason Wall Street's love affair with Alteon has cooled: After more than tripling since its IPO, Alteon's shares are 35% off their Dec. 7 peak.

The job of getting the 700 out the door and into the marketplace falls squarely on Lo. Unlike many marketing execs, she enjoys strong respect from Alteon's engineers and customers. "She can speak the language of both sides," says Will H. Layton, vice-president of Ticketmaster-Online CitySearch Inc. and an Alteon user. Lo meets weekly with Alteon's technical team and likes to slip out the back door of the office to sneak cigarettes with the engineers. Even her screaming fits don't faze them. "She knows what she's talking about," says Wayne Hathaway, one of Alteon's founders.

THE SELINA LOWDOWN

LO, AT 13, WITH HER MOTHER IN HONG KONG

BORN 1959, Hong Kong.

EDUCATION University of Calif., Berkeley, BS computer science, 1982.

JOB Vice-president of marketing for Alteon WebSystems.

CAREER HIGHLIGHTS Pioneered breakthroughs in networking at three startups; made Alteon a star by dreaming up Internet gear that analyzes and manages Web traffic.

MANAGEMENT STYLE Known for pounding tables and screaming at anyone who gets in her way. Stops at nothing to win but rewards supporters with lavish gifts.

FOIBLES Frenetic and clumsy, she has walked into signs, mistaken closets for exits, and once roared out of a gas station with the nozzle still in her tank.

SUPERSTITIONS Frequently consults fortune tellers.

FAMILY Oldest of three children, single.

And she's not all hard edge either. Friends and co-workers say Lo is fiercely loyal. She likes to reward engineers for completing tough jobs with bottles of expensive wine and weekend trips to Napa Valley. She has given away small amounts of Alteon shares from her own 2.6% stake—now worth about $93 million—to thank colleagues and friends for extra effort or support. And although she has never married, Lo is devoted to her family, especially her two nephews. "I'm not an entirely ruthless person," she says with a laugh.

Lo also has a spiritual side, a quality she attributes to her Asian background. A believer in the Chinese system of *feng shui,* which equates design with harmony, Lo insisted that Alteon's front door be moved from the corner of the building where it faced a hospital, a bad om Then she demanded that two trees front of the new entrance be cut d because they were spiritual obstacles

Adhering to the principles of *f shui*, however, hasn't muted Lo's w streak. At Alteon's user conference l April, she jumped up on a table, cal for a toast, and then pounded teq shots with the assembled crowd techies. "These young m customers just worship he says Taylor. Lo also gives frequently to her love for fa ion, snapping up Chanel a Alberta Ferretti suits and P da bags during frequent tri to New York. And she's m for pricey Ferragamo a Manolo Blahnik shoes, havi recently built a rack in h house that holds 100 pairs still just half her collection.

Such trappings are a lo way from Lo's modest u bringing in Kowloon, whe her father owned a sewi factory. Lo, the oldest three, was a rebel even as youth, spending money wit out her father's permissio and luring other girls at h Catholic school to sneak o campus during lunch. She r jected her English nam Agnes, and chose Selina aft she read the name in a nove At 17, she left Hong Kong t attend college in the U. S., i part because she was fasci nated with American TV shows like *Th Young and the Restless* and *The Si Million Dollar Man.*

A liberal arts student at first, Lo discovered her aptitude for computers in a summer job and switched majors. Good move. At Hewlett-Packard, "she had a phenomenal comprehension of business and technology," says Mashima, who recruited Lo into her unit after the two became aerobics buddies.

Lo will need both skills as Alteon enters a make-or-break period. The delay launching the 700 Series clearly has her fired up again and also a little worried. "I must have left a tree somewhere that needs to be cut down," she says. When she finds that poor tree, it's a sure bet it will fall fast and hard.

By Andy Reinhardt in San Jose, Calif.

THE DOT

Just when your competition thought it was safe to do business.

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THE NEW ECONOMY

It works in America. Will it go global?

It seems almost too good to true. With the information technology sector leading the way, the U.S. has enjoyed almost 4% growth since 1994. Unemployment has fallen from 6% to about 4%, and inflation just keeps getting lower and lower. Leaving out food and energy, consumer inflation in 1999 was only 1.9%, the smallest increase in 34 years. This spectacular boom was not built on smoke and mirrors. Rather, it reflects a willingness to undertake massive risky investments in innovative information technology, combined with a decade of retooling U.S. financial markets, governments, and corporations to cut

ILLUSTRATION BY TOM WHITE

costs and increase flexibility and efficiency. The result is the so-called New Economy: faster growth and lower inflation.

Most corporate executives and policymakers in Europe and Asia, once skeptical about the U.S. performance, have taken this lesson to heart. There are still widespread misgivings about the U.S. model of free-market capitalism. But driven by a desire for faster growth, combined with a fear of being left behind, the rest of the world is starting to embrace the benefits of a technology-driven expansion.

Special Report

But a global New Economy will not happen overnight. True, spending on technology, the most visible part of the New Economy, while not yet up to U.S. levels, is on the rise everywhere. Semiconductor sales were up 17% worldwide in 1999, while the number of Internet users in Western Europe and the Asia-Pacific region is expected to more than double over the next five years (chart). Even in a developing country such as India, the software industry is growing at a rate of 50% to 60% annually.

OLD VIRTUES. But the worldwide proliferation of mobile phones and Web accounts by itself will not bring about a more vibrant global economy. What's also needed are dramatic changes in core institutions that will translate technology into faster productivity growth. That means financial markets better able to fund innovation, more flexibility in corporations and labor markets, a faster pace of deregulation, and increased competition (table). "The New Economy is built on old virtues: thrift, investment, and letting market forces operate," says Treasury Secretary Lawrence H. Summers.

MAKING MEMORIES: *Taiwan's semiconductor companies are feeding A*

THE ROAD TO THE NEW ECONOMY

Here's what countries must do to get a high-productivity, low-inflation economy

BOOST INVESTMENT SPENDING on information technology as a share of GDP

RESTRUCTURE CORPORATIONS to cut costs, improve flexibility, and make better use of technology

OPEN FINANCIAL MARKETS to direct capital to the best uses

DEVELOP VENTURE CAPITAL and IPO markets to aid innovative companies

ENCOURAGE AN ENTREPRENEURIAL CULTURE and make it easier to start new businesses

INCREASE THE PACE OF DEREGULATION especially in telecom and labor markets

ADJUST MONETARY POLICY to the realities of the New Economy by waiting for inflation to appear before raising interest rates

There are signs that the process of change has start With growth picking up in Europe, and Asia emerging fr its slump, Merrill Lynch & Co. is forecasting 3.3% wo growth for 2000, with inflation slowing down (chart). Cor rate restructuring has begun in Europe and Asia, finan markets are being rebuilt to support innovation, and there more willingness to take risks. "I'm seeing the entrep neurial response almost everywhere," says Clyde Prestowitz Jr., president of the Economic Strategy Institu "It's not Silicon Valley yet, but there's a lot of fermen Even in slow-growing Japan, "I think there will be a N Economy," says Toshiba Corp. President Taizo Nishimu though he cautions that "it won't be the same as the U.S

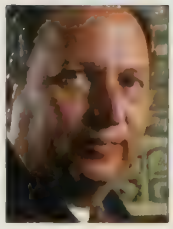
Nevertheless, the process of shifting to a fast-growth tra is still in its early stages in most of the world. Europe is least two or three years behind the U.S., with Asia laggi even farther behind. While there are pockets of entrepr neurial vigor in places such as Finland, it has turned out to an enormous challenge to reshape cultures to allow mo risk-taking in Europe and Asia, where caution is a virtue.

It also takes time for policymakers to adjust to the Ne Economy. In the U.S., Federal Reserve Chairman Ala Greenspan, an enthusiastic proponent of technology-drive productivity gains, resisted great pressure to raise rates the face of fast growth and low unemployment. By contras the two biggest central banks in Europe, the European Ce tral Bank and the Bank of England, have adopted a policy aggressively raising rates at the slightest hint of inflation, th choking demand needed to justify business investmen

hunger for information technology

oreover, investment in risky innovation—a linchpin of New Economy—depends on open global markets, since nal markets do not provide a big enough payoff for tak- big risks. But as shown by the demonstrations against the ld Trade Organization in Seattle, there are groups in y country who feel threatened by free trade. A wide- ad backlash against globalization could remove a key erpinning of the New Economy.

conically, skeptics also worry that a worldwide investment m could itself trigger global inflation. The reason? Slow wth in Europe and Asia in the 1990s helped keep modity prices and interest rates low in the U.S., despite ng growth in America. But as the rest of the world picks up steam, that slack is slowly disappearing. By sometime later this year or early 2001, unemployment in the major industrialized economies should drop below the level that triggered inflation in the late 1980s. "That's when you get a reasonable test of the New Economy thesis on a global basis," says Stephen S. Roach, chief economist at Morgan Stanley Dean Witter in New York.



ENDURING

"The New Economy is built on old virtues: thrift, investment and letting market forces operate"

— LAWRENCE SUMMERS, U.S. Treasury Secretary

But despite these obstacles, a shift to a U.S.-style economic model is looking increasingly attractive as a guide to development. Based on the American example, technology-driven growth creates many more jobs than it destroys. Combined with big productivity gains, that allows the unemployment rate to fall without igniting inflation—something that would be welcome in European countries that have long struggled with high unemployment. Faster growth would also ease the long-term burden of funding the retirement of aging populations in Japan and Europe.

OPEN ACCESS. Moreover, the global economy is not a zero-sum game: Faster growth in the rest of the world would have a big payoff for the U.S. as well. Commodity prices might rise at first, but so would exports, bringing down the swelling trade deficits and creating manufacturing jobs at home. U.S. companies would start to see overseas profits accelerate.

And then there's the innovation factor. For corporations, the most important justification for spending big bucks on information technology is that it supports restructuring and cost-cutting. But from a global perspective, a critical benefit of the Information Revolution is that for the first time it makes data available worldwide. Historically it has taken years, if not decades, for even the most important technological and business innovations to spread across national borders.

But that's changing. Now, an engineer in China, say, can log on to the Internet and have immediate access to the treasure trove of data on U.S. Web sites. More important, engineers in developing countries can communicate much more quickly with counterparts in other countries and learn what works and what doesn't. The gains from faster transmission of innovation can add up to 1% to global growth rates, according

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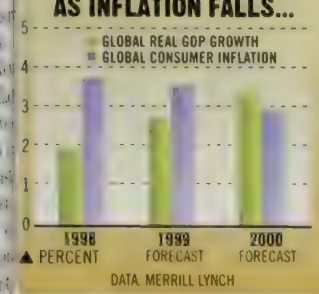
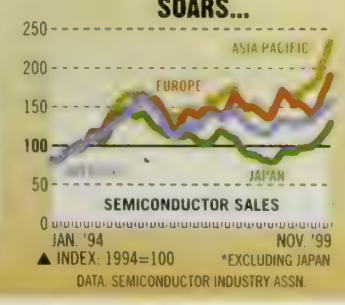
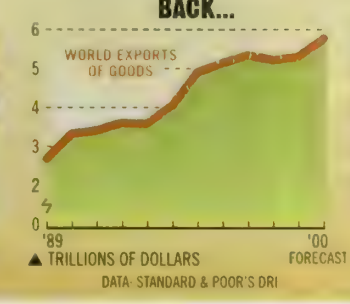
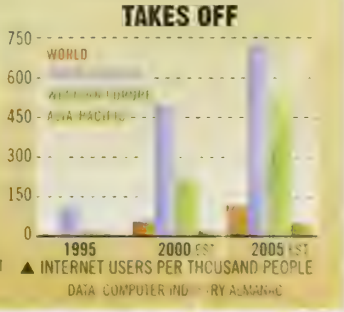
THE GLOBAL NEW ECONOMY









to research by economists Jonathan Eaton and Samuel S. Kortum of Boston University. That's an enormous potential boost.

But new technology has to be nourished within a larger framework of institutional changes. For one thing, openness of domestic markets to foreign trade is vital for turning innovations into real improvements in output. Without competition from overseas, companies make changes slowly and reluctantly. The big gains only come, according to a 1999 study by Catherine L. Mann of the Institute for International Economics, "when trade encourages and diffuses the fullest uptake of globally available technological innovation by all firms within an industry."

Special Report

Equally important for sustained noninflationary growth is access to well-run financial markets that can move savings to the most productive investment opportunities, while cushioning the inevitable excesses to which markets are prone. "Even small improvements in the way capital is allocated in an economy have enormous consequences," says Summers. Under a reasonable set of assumptions, an increase in the efficiency of financial markets that decreases interest rates by 20 basis points can add 6% to output over several years.

AMERICAN ADVANTAGE. One area where the U.S. excels is the ability to fund innovative companies at an early stage. U.S. venture-capital spending doubled to more than $40 billion in 1999. And according to a study by Kortum and Josh Lerner of Harvard business school, a dollar of venture capital produces three to five times more patents than a dollar of research and development spending. "Venture capital is much more potent," notes Kortum.

Other countries in Europe and Asia are trying to catch up. In China, for example, the southern city of Shenzhen has just put together its own $120 million venture-capital fund in an effort to stimulate local high-tech development—just one of several Chinese cities that has done so. The problem is that the new venture funds in Europe and Asia often have corporate or government affiliations, which tend to make them less effective. "They don't have the autonomy that we associate with U.S. venture-capital funds," says Lerner.

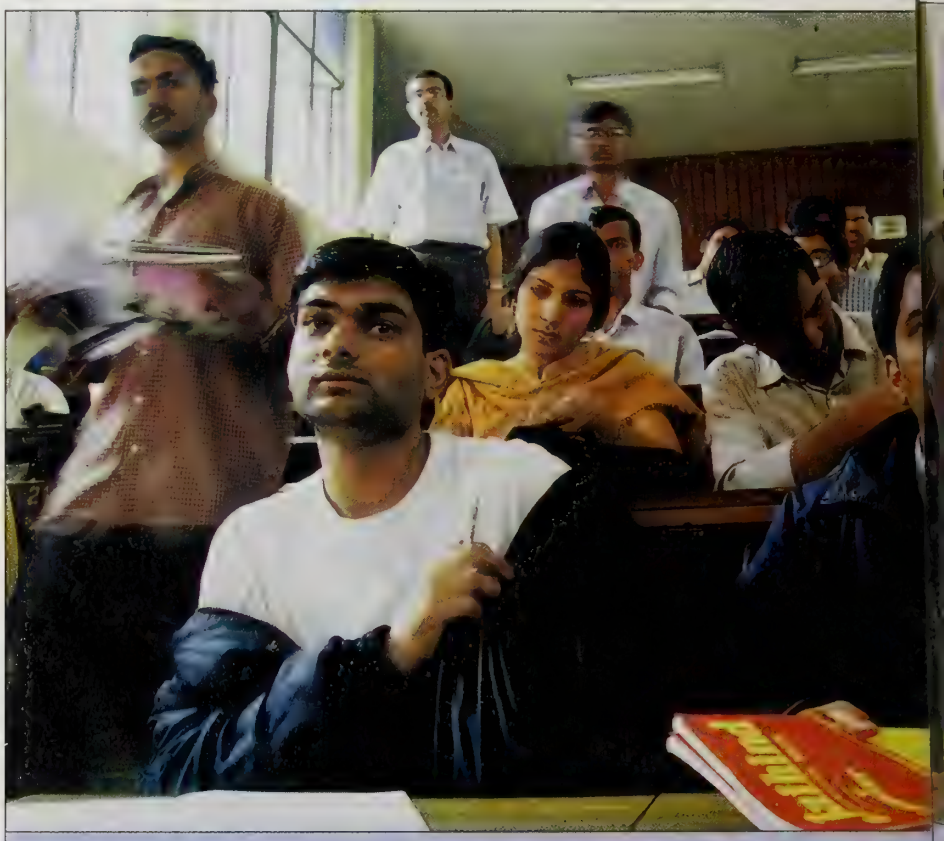
And even if the funding is available, it's a slow process to adopt a culture that favors risk-taking and makes it easier for new businesses to start up. "This won't take six months," says Bernard P. Vergnes, chairman of Microsoft Europe. "We'll have to start in the schools to change the bankers and the politicians of the future and make them less averse to risk."

It may become easier in the future to entice politicians to jump aboard the New Economy bandwagon, as the political advantages become clearer. In India, for example, the new Bharatiya Janata Party government decided to use the vision of an IT-literate India as an election promise. In Sweden, Björn Rosengren, the minister for industry, employment, and communications, is promising broadband in every home. This coming summer, the national government is expected officially to give a contract to develop a nationwide broadband network to Svenska Kraftnat, which operates the main electricity grid.

There is a growing willingness to back away from central control over national economies, even in the most hidebound of regulated industries. The wave of telecom mergers in Europe shows that the old idea of national monopolies is dead. And in J where high telecom charges were holding back e-comm Nippon Telegraph & Telephone last fall introduced a rate high-usage Internet access service—aimed primari small offices and heavy individual users—for $75 a mon parts of Tokyo and Osaka, the two largest cities. Now it's templating cutting the price, possibly by 50%, by the ti launches the service in major centers around Japan in next year or so.

Nevertheless, the changes are occurring piecemeal. side the U.S., there are no definitive signs yet of a ductivity acceleration. Countries such as Britain and J are actually showing a productivity slowdown, based measured data. However, it took years in the U.S. be

WELL-CONNECTED: *F*



TALENT EXPORT: *Indian universities turn out 122,000 engineers each year*

TOP TO BOTTOM: PHOTOGRAPHS BY ILKKA UIMONEN/CORBIS SYGMA; NAMAS BHOJANI

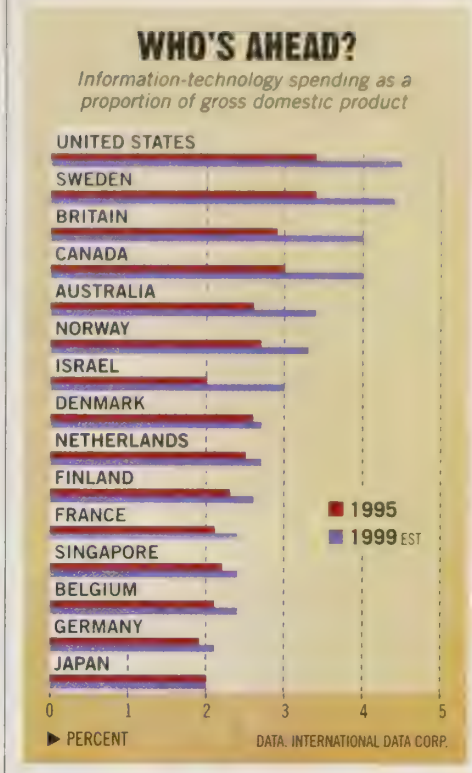
ildren carry cell phones

productivity data reflected the Information Revolution, and the lag in the global statistics could be much longer. The reason? Starting in the 1980s, U.S. statistical agencies started adjusting the economic data to take into account the growing power of computers. Most other industrialized countries have not adopted similar methodologies, so that New Economy effects will take longer to show up in the numbers. "It's become quite an issue," says Jon Beadle, a statistician in ain's Office for National Statistics.

hat could stop the New Economy from going global? ltaneous rapid expansion in Europe, the U.S., and Asia l push up the prices on world commodity markets. But s there is a cartel that holds supply down—as in the case l—such increases are likely to be temporary and not t in lasting inflation. Take steel, for example. With the d's mills operating at close to full capacity, "we are forening a shortage of steel," says Peter Marcus, managing ner of World Steel Dynamics, an Englewood Cliffs (N.J.)-d consulting firm. He predicts that prices of hot-rolled steel could spike up by 50% later this year.

it as buyers and suppliers of industrial products and increasingly move onto the Web, it will hold down prices. "Improvement in e-commerce will make the pricing structure more competitive," notes Marcus. Sandvik Coromant, a unit of Swedish specialty steel manufacturer Sandvik, expects 40% of its Scandinavian sales to be via the Internet within three years, allowing it to cut order costs in half.

Similarly, soaring demand for the core products of the Information Revolution—memory chips, microprocessors, and liquid-crystal displays—is likely to push up prices in the short run. Companies such as Gateway Inc. have already complained of shortages. But recent experience shows that new capacity can be quickly created in these industries.



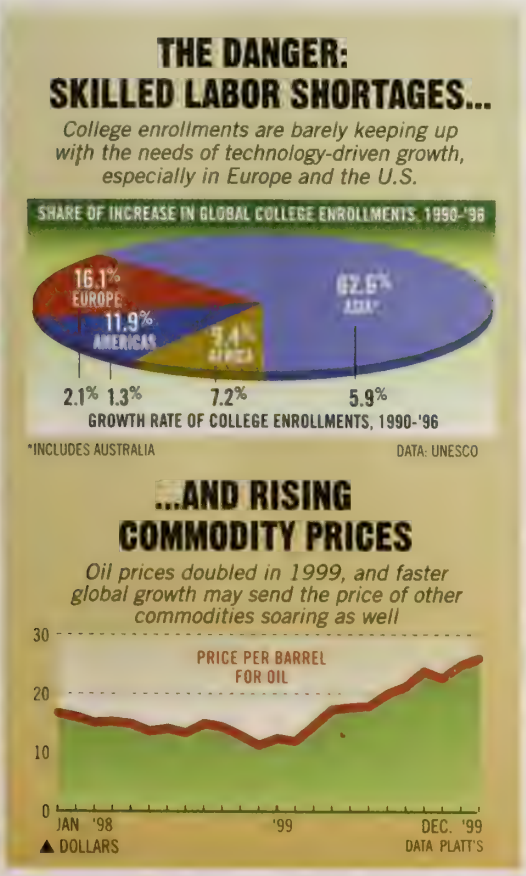
The biggest constraint on the spread of the New Economy globally will not be commodity inflation or product shortages. Rather, the main problem will be finding enough highly skilled and computer-literate workers to staff rapidly growing information industries. Europe and Japan will have to find a lot of highly skilled workers—quickly—as they try to beef up their New Economy industries. "The one big inhibitor is the shortage of skilled labor," says Andrew Milroy of International Data Corp. in London. IDC estimates that the demand for skilled workers will exceed supply by 20% in Western Europe in 2002. And engineers comprise some 40% of China's enormous crop of annual graduates.

It will be necessary to draw on the enormous supply of college-educated workers in countries such as India and China. Asia accounts for two-thirds of the global increase in college and other post-high-school enrollments in the 1990s. Indian universities turn out 122,000 engineers every year, compared with 63,000 in the U.S. And engineers comprise some 40% of China's enormous crop of annual graduates.

The growth of the U.S. high-tech industry has been fueled by a steady flow of highly educated immigrants and foreign students. Between 1985 and 1996, foreign students accounted for two-thirds of the growth in science and engineering doctorates at U.S. universities. Most of them planned to stay and work in the country.

Like many other aspects of the New Economy, opening up the doors to foreign workers won't come easily in many countries. But the genie is out of the bottle—now that the U.S. has shown that faster growth is possible, no country will be able to resist it. In the end, the benefits will be well worth the pain.

By Michael J. Mandel in New York, with bureau reports



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WORK IN PROGRESS

Signs abound of a nascent New Economy

Special Report

Barcelona boasts a new generation of fast-growing technology startups. Helsinki is the world's cutting-edge market for wireless Internet banking. Ireland ranks second only to the U. S. in global software exports. Munich has become a hotbed of venture-capital investing, with some $10 billion of funds under management.

Surprising signs of economic vitality are popping up around Europe, long known for sluggish growth, restrictive labor practices, and unwieldy government budgets. After stagnating for years, growth in the 11-nation euro zone is expected to top 3% this year. Unemployment, the Continent's chief social scourge, has finally dropped below 10%. Private-sector job creation in France, the euro zone's second-largest economy, is at its best point in 30 years. And companies from Helsinki to Lisbon are spending a fortune on new information technology.

No wonder that across the Continent a debate is raging: Could the Old World actually be developing a U. S.-style New Economy? Is Europe headed for an extended period of higher, noninflationary growth, fueled by rising productivity and heavy technology spending? Economists, businesspeople, and politicians are divided. "There's no doubt that a New Economy is developing" in the euro zone, declares Thomas Mayer, chief economist at Goldman, Sachs & Co. in Frankfurt. He cites the rapid growth of knowledge-based businesses and sweeping deregulation of markets such as telecoms as clear indicators.

Other seasoned economists are skeptical. They figure that the current upswing is largely a cyclical phenomenon, driven primarily by the recent relaxation of tight fiscal policies in most euro-zone countries and the export-enhancing weakness of the euro. Still others claim that Europe's markets are too fragmented, its labor markets too inflexible, and its regulations too restrictive to allow surging growth without inflation.

WAVE OF MERGERS. So far, neither the statistics of the European Union nor individual countries confirm that Europe is benefiting from the same technology-driven productivity gains that spurred such growth in the U. S. The latest European Union-wide data show that the growth rate of labor productivity per hour stagnated for the past four years. In 1999, labor productivity rose an estimated 1.9% in the 11 countries that make up the euro zone, down from a 2% increase in 1995.

Yet it just may be that beneath the surface, a New Economy is taking shape in the Old World. Anecdotal evidence from manufacturers and service companies alike suggests that productivity is rising faster than official figures show. "Companies are finding their own way to the New Economy. It's

WHERE THE ACTION IS

1 IRELAND World's No. 2 exporter of software after U.S. GDP grew over 9% last year. Unemployment is down to 5.1%.

2 SOUTHEAST ENGLAND Thanks to London's financial markets and a surge in Internet startups, the region is one of the richest in Europe.

3 CAMBRIDGE The area around this university town is a center of biotech and software startups. Microsoft has a research center here.

4 PARIS A vibrant center venture capital. New entrep neurs' lobby is improving c ditions for startups.

5 GRENOBLE Telecoms an microelectronics research institutes have spawned spin-offs.

6 STRASBOURG A major European center for biotech startups.

ICON BY TOM WHITE

The Côte d'Azur has a center for software tronics startups, o R&D centers set up nationals such as struments and IBM.

OUSE With aero- iant Airbus Industries arters here, the region cubator for electron- aerospace startups.

CELONA Flourishing e and Internet start- hnical universities, al government policy shed unemployment 6.5%, less than half onal average.

ES, BELGIUM The heartland is home of 42 language software companies, led by Lernout & Hauspie Speech Products. GDP grew 3.1% last year, vs. 2.3% for Belgium overall.

11 THE NETHERLANDS Internet startups are flourishing in one of the world's most heavily cabled nations.

12 FRANKFURT REGION Software giant SAP is located in nearby Walldorf, while biotech startups are dotted around Heidelberg.

13 MUNICH This hot spot for venture capital, with $10 billion in funds under management, is now attracting both American and British venture capitalists.

14 DENMARK The world leader in hearing aids and audio technology—key elements in cell phones.

15 NORWAY Some 80% of Norwegians, 13–20, use cell phones. Joblessness is 3.2%.

16 STOCKHOLM About 80% of the city's residents have access to the Internet, vs. 30% for Europe as a whole. Computer literacy has pushed up incomes 15% above the national average.

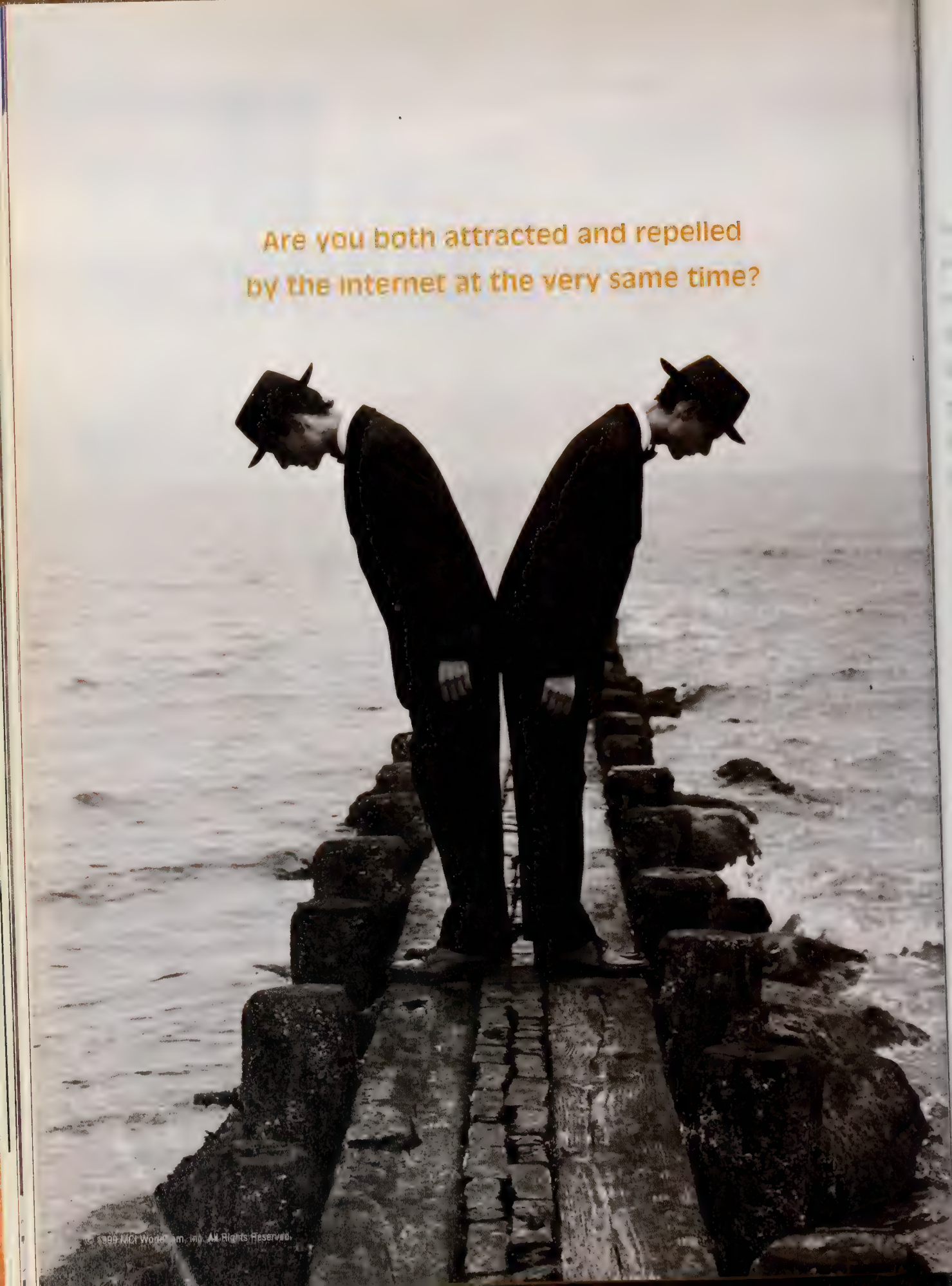
17 HELSINKI Home to Europe's most valuable company, Nokia. Here, 65% of residents own cell phones.

18 OULU, FINLAND This Arctic city is a major manufacturing center for Nokia and a research hub, thanks to a technical university and a government-backed science park. The local economy is growing 9% annually.

WHO'LL WIN?

"All the things we have taken for granted are being put into question. No one can predict who will be the winners of tomorrow, nor for how long they will remain winners"

— ERKKI LIIKANEN, European Commissioner for Enterprise and the Information Society


Are you both attracted and repelled
by the internet at the very same time?
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Experience tells us the Internet makes people feel a lot of different emotions all at once. And who can blame them? On one hand, the Internet opens their business up to billions of potential customers. On the other hand, it opens their business up to billions of potential hackers.

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All of which made this pharmaceutical giant feel a brand new emotion: relief.

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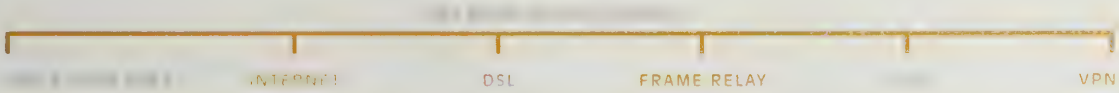
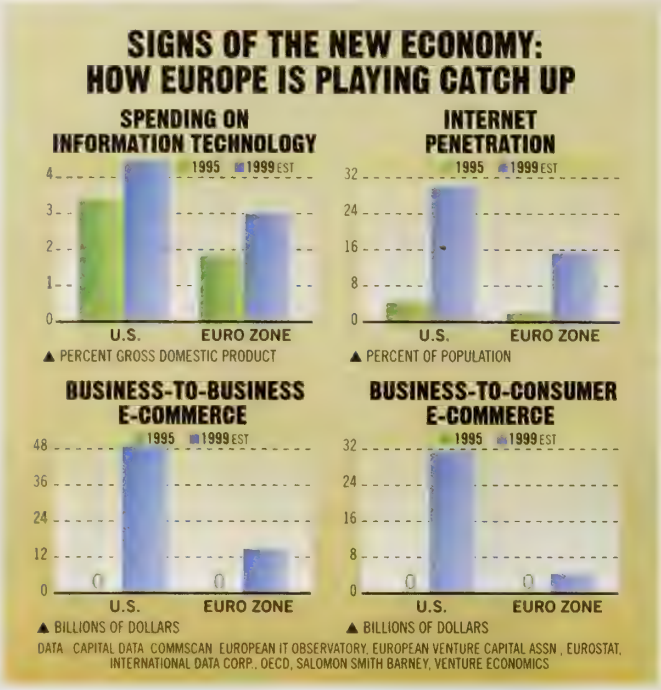


MCI WORLDCOM.

happening despite the rigidities," says David Cotterill, chief strategist for Europe at Cambridge Technology Partners.

Certainly, Europe enjoys some of the key elements necessary to start a New Economy. Until recently, the Continent's capital market was small and fragmented. But the introduction of the euro has fused it into a single, dynamic whole. It's now far easier for companies to bypass cautious commercial bankers and go straight to investors. Altogether, companies in the euro zone raised $222 billion by issuing new equities and bonds last year, 10 times more than in 1995. Initial public offerings on Frankfurt's Neuer Markt and Europe's other markets for fast-growing stocks totaled $55 billion last year, three times more than in 1998. And the amount of venture capital raised in Europe in 1999 topped $20 billion.



Almost as important, the arrival of the single currency has sparked a big wave of merger, acquisition, and restructuring activity. That in turn has sharpened the Continent's once dull appetite for Anglo-Saxon-style creative destruction. U.S. financial institutions are playing their part: They now own large stakes in many European companies and are pressuring CEOs to maximize shareholder value.

Still another sign of a New Economy in the making is the jump in technology spending. European companies shelled out $200 billion on new information technology in 1999 and are expected to spend up to 30% more this year. Economists at Salomon Smith Barney reckon that productivity gains as a result of information-technology investments in Europe are noticeable on the ground: They should be adding up to half a point to the annual growth of the EU economy by 2003.

Examples abound of productivity gains driven by information technology. French a parts supplier Valeo plo $300 million, or 3.5% of sa into productivity-gaining p provements last year, a the company is moving r idly to put supplier bidd on the Internet. That k of spending is a must Chief Executive Noel G tard, who has to shave up to 10% from parts pri annually to hold on to ha nosed customers such General Motors Corp. a Ford Motor Co.

The productivity ga may be filtering through the service sector, whe they are notoriously diffic to measure. MeritaNor banken, the cross-bord Nordic commercial ban says that recent informatio technology investments a clearly improving revenu per employee, a sign that productivity is increasing. full 62% of the equity trading done by MeritaNordbank customers is now over the Internet. Analysts calcula that the productivity of the bank's stockbroking business rising by a hefty 5% a year.

Special Report

Meanwhile, after years of laggi behind, Europe seems to be developi its own job-creating tech sector. Tec nology companies are springing up surprising places (map, page 80). In Catalonia, where hig tech companies employ 51,000 workers, unemployment 6.5%—less than half of Spain's 15.4% jobless rate. Lured skilled graduates from nine local universities, Hewlet Packard Co. and Nokia have set up research and develo ment centers near Barcelona.

Europe's smaller countries have been the most successf in creating high-growth economies. Gross domestic produ in Finland and Holland is expected to grow more tha 3.5% this year. Ireland's economy sizzled with more than 9 growth last year. Each of these countries is creating jobs record numbers, partly because they have led the way structural economic reforms.

For Europe's New Economy to get going, though, th bigger countries need to get into the act. France and Ge many are still beset by sky-high labor costs, even whi many still want government solutions to joblessness tha hurt the market: In Germany, employers, unions, and th government are talking about lowering the retirement ag from 65 to 60.

LABOR CONCESSIONS. But while Europe's left-dominate governments still spout socialist rhetoric, behind the scene Germany and France are fast becoming more business friendly. France has just introduced a 35-hour workweek but companies have been able to wrest greater flexibilit from unions as a condition of applying shorter workin time. And tax regimes are getting less repressive. I France, almost $7 billion will be lopped off companies' ta bills this year—the equivalent of 0.5% of GDP. In Germany the corporation tax will be slashed from 40% at presen to 25% in January, 2001. These measures will boos

SKEPTIC

"I don't think that the New Economy has yet arrived at all in Europe. We first have to get our own house... in order before we can start thinking about phenomena so benevolent in the U.S."

— WIM DUISENBERG, European Central Bank President

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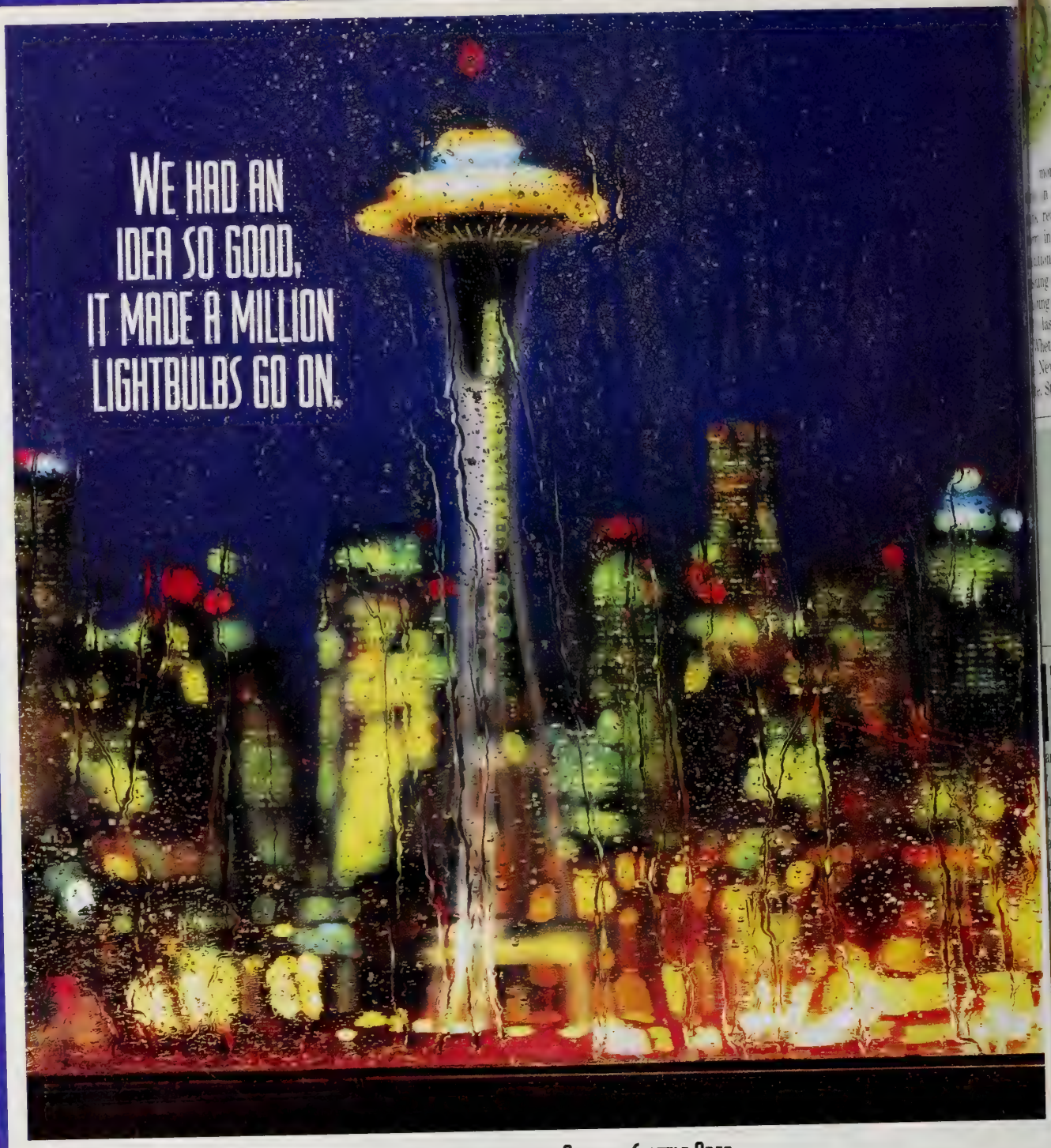

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the capital available for investment. The potential bottlenecks are still there, of course. Europe's governments and labor unions may balk at making the economy more flexible. Much, too, will de- d on how the European Central k reacts to rising growth. The ry in Europe is that the ECB, still litional in its outlook, could choke economic activity by hing up interest rates at the first sign that inflation is ding toward 2%. Inflation for the euro zone touched % last month.

Whether in the corridors of the ECB or inside Europe Inc., New Economy is likely to remain a subject for hot de- e. Still, Christian Saint-Etienne, a Paris-based consultant and longtime skeptic about the chances for real structural reform in Europe, is starting to turn more hopeful. Saint-Etienne says that Europe has a good chance of catching up with the U.S. if the Continent's economy grows 3% a year for two or three years. "The crucial question is not whether the New Economy is taking hold in Europe. It is whether growth can be strong enough to [trigger] the kind of investment boom that the U.S. experienced," he says. If that investment boom materializes, Saint-Etienne figures, the New Economy will expand rapidly to supplant the Old. Europe may yet have its new age of prosperity.

By David Fairlamb in Frankfurt and Gail Edmondson in Barcelona, with bureau reports

Special Report

COMMENTARY

By Stanley Reed

DON'T SHACKLE JOHN BULL

t is now more than two years since British Prime Minister Tony Blair gave the nk of England authori- to set interest rates. at was his way of oiding the errors that d contributed to high flation and economic latility from the 1970s rough the early '90s.

Yet, though monetary licy may now be insu- ted from electoral poli- es, Britain's central bank ay have embarked on a istaken course all its own. On Jan. 13, it hiked short- rm interest rates to 5.75%. Although inflation remains elow the bank's 2.5% target, this is the third increase in ve months.

ALLING PRICES. Most British economists think that a aring property market and rising wage costs justify ese rises. But the bank should still be wary of jamming n the brakes too hard. Signs abound that the British conomy is going through profound changes similar to ose occurring in the U.S. A year ago, many economists redicted that Britain would be in recession in 2000; they ow forecast growth of 3% to 3.5%. At the same time, re- ail prices of consumer goods are falling for the first time n recorded history—trends that could be accelerated by n Internet boom. Says David Owen, an economist at Dresdner Kleinwort Benson Securities in London: "The ank is underestimating the impact of the Internet."

Confusion reigns inside the bank. Its nine-member Monetary Policy Committee, which sets rates, is split. A action headed by Deputy Governor Mervyn King be- ieves that the economy is in danger of overheating. A nore dovish group argues that the old trade-offs between growth and inflation may no longer apply.

The bank's New Economy advocate is DeAnne Julius, an American who is one of four outside members appointed by Chancellor of the Exchequer Gordon Brown. The other five members are bank officials. Julius, formerly chief economist for British Airways PLC, argues that a plethora of changes, from more flexible labor markets to the growing use of the Net, are likely to spur growth without increased inflation in Britain.

She also predicts that business investment, now at a record 14% of gross domestic product, could boost productivity. That would let wages, currently rising at a 10-year high of nearly 5%, increase without inflationary effects. "Unless the central bank realizes that the productive capacity of the economy may have increased, then the economy may never reach its new growth potential," she says.

Arguments such as these haven't cut much ice with the bank's inflation fighters. "We should be cautious about those who speak of new paradigms," King said last May. "'Paradigm' is a word used by those who would like to have a new idea but cannot think of one." Uncertainty about the bank's direction has driven up risk premiums on some sterling contracts.

Business isn't panicking yet. British rates remain comparable to the U.S.'s and may be cut if inflation stays down. Still, King and his coterie should pay more heed to Julius. They don't want to be remembered for having choked off growth by fighting the last war.

London bureau chief Reed covers the City.

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rules

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NET PIONEER: *Askul, Japan's largest office supply company, offers real-time ordering and 24-hour delivery*

EDGING TOWARD THE INFORMATION AGE

Asia's investment in technology will pay off—but not overnight

Could it happen here? Across Asia, from the Chinese clans of Thailand and Taiwan to the chain-smoking day traders of Seoul and the risk-takers clustered in central Tokyo's Bit Valley, optimism about the New Economy abounds. After more than two years of crisis, executives and policymakers are eager for a big payoff from the diffusion of information technology, the spread of the Internet, and the adoption of global business practices. The excited talk in many Asian boardrooms is of the convergence of personal computers, smart phones, and e-commerce, and the huge impact that it will have on the region's productivity and consumer spending.

Small wonder, then, that global investors are snapping up any stocks that smell like an Asian New Economy play, turbocharging bourses around the region. Companies like NTT DoCoMo, the Japanese cell-phone operator, are emerging as savvy ways to bet on the merger of the Net and wireless phone systems. Other big corporations, like Samsung Electronics and Hitachi, are going through the kind of painful but needed restructuring that prevailed in the U. S. in the 1980s. The local corporate appetite for information technology products is rising fast, as shown by the soaring Asian demand memory chips.

These are the telltale signs of a New Economy in making. Yet investors should also learn the art of patienc they await the great economic makeover of Asia. Taken whole, Asia today still lacks the kin superliquid and vast capital mark venture-capital networks, world-c universities, risk-taking culture, structuring ethos, and high-tech talent pool that set stage for the amazing run of growth the U. S. has had si the mid-1990s.

Special Report

Asia must still spend plenty to reach the critical m needed for a New Economy takeoff. U. S. investment in formation technology is now at about 34% of total business vestment. The closest Asian rival, Japan, is spending o 20%. Another edge: The market capitalization of all U stocks is roughly $17 trillion, providing a massive war ch for strategic acquisitions and overseas expansion. None of markets in Asia—even Japanese stocks are worth maybe trillion—comes close to providing that kind of liquidity.

And to suggest that Asia can swiftly dismantle decad

ıctices of state intervention and backward financial ıes stretches belief. "It's kind of like dreaming about the space shuttle when you haven't yet figured out build an airplane," says Sam Nakane, a Tokyo-based ıg partner in charge of e-commerce for Pricewater- ıopers.

ɔURT ADVANTAGE. It's true that deregulation, wholesale uring, and disruptive new technologies are starting to impact. Just look at Japan, where efforts to deregulate ›hones, oil importers, and financial services have added on annually to the economy during the 1990s, as prices len. Deregulation of stock commissions has attracted 40 liscount brokers. The Tokyo Stock Exchange's new -counter market and the arrival of Nasdaq-Japan this e helping high-tech startups to attract capital.

› even see home-court advantages that could make ı world leader in info appliances. Personal-computer ıtion is only 30% of all households vs. 50% in the But mobile-phone penetration is nearly double, and igation systems more than triple" that of the U.S., yusuke Ikegami, director of business planning at Soft- e-commerce unit. Both could be huge access points for ıerce in Asia. The burning question now, though, is r these changes can go. Japanese still pay three times h for electricity, twice as much for housing, and 30% or Internet connection fees than the U.S.

e innovators such as Japan's biggest office products r, Askul, have used the Internet to offer real-time ıg and 24-hour delivery to its clients. It has enjoyed avings by setting up a high-tech distribution center on land near Tokyo Bay. The productivity gains afforded Internet will allow its sales to double to $400 million t March—without adding to its workforce of about a ed. "We now get customer feedback instantaneously," Marketing Vice-President Mike Onishi, who says the ny plans to go public next year.

what worries Shin Yasunobe, director of the Ministry of ational Trade & Industry's electronics policy division, is ›sence of such zeal at so many other companies. He that Japan's business-to-business e-commerce, which grow to $650 billion by 2003, will still be less than the expected U.S. level. Such sectors as chemicals, pa- extiles, and distribution haven't even started to replace era proprietary networks, and are missing out on po- lly big productivity gains. Another worry, particularly g startups, is finding enough qualified bodies. Yoshikuni chief operating officer of autobytel-Japan K.K., which launched its auto-sales Web site in November, says his biggest challenge is finding managers willing to take risks. "This is really a speed game, and that's not very Japanese," he says.

Things are moving faster in South Korea, which grew 10% last year with only 1% inflation. In Internet usage and online trading, Korea is ahead of Japan. The number of startup companies doubled last year, to 4,700, and the market capitalization of Korea's tech-laden Kosdaq market jumped thirteenfold, to about $100 billion. Samsung Securities lost a top bond trader and analyst to startup Serome Technology, an Internet phone service provider whose shares have jumped ninetyfold, to $210, since listing last August. "It appears Korea has jumped on the New Economy bandwagon," says Cho Dong Sung, a business professor at Seoul National University.

SEA CHANGE

"The Internet and e-business are changing the Koreans' way of thinking and way of doing business. Asian companies will quickly go online and the Internet will drive the globalization of the region"

— OH SANG SU, CEO of Serome Technology Inc.

Yet the kind of heavy lifting needed to restructure the nation's conglomerates—a necessary prelude to the New Economy—hasn't really begun. Last year, South Korea Inc. spent roughly 60% of its operating profits servicing debt loads, the legacy of years of build-and-borrow growth strategies by the chaebol that triggered the crisis in late 1997. Debt service is tying up capital that could go to high-tech investment. Nor has South Korea brought stability to its financial sector.

Nobody said these countries could reinvent their economies overnight. Yet as the Internet spreads and its cost drops, Asian consumers and businesses will have vastly greater access to information about products and prices. That should wear down hidden barriers to free commerce and boost the economy. Right now, though, it's just an intriguing vision. Making it happen on the ground is the hard part.

By Brian Bremner in Tokyo and Moon Ihlwan in Seoul

BREAKING DOWN THE BARRIERS TO THE NEW ECONOMY

JAPAN	SOUTH KOREA	TAIWAN	INDIA	CHINA
fo-tech sector is ›out the only rising ar in an economy st emerging from re- ssion. Still carrying lot of dead weight in ınset industries.	Runaway fascination with online trading and smart phones all the rage. Still, financial sector is a basket case, and more corporate restructuring a must.	Powerhouse in production of laptops, motherboards, and other computer hardware. Aims to triple size of software industry to $4.5 billion.	Surprising new entrant, and info tech sector is growing. Although few of the foundations of a New Economy exist, its engineers have a knack for making software.	Boasts fast-growing Internet and mobile phone markets. Beijing worried about e-dissidents. State-run companies facing shakeup.
ıtizens: 20 million **C Owners:** 30% of ›useholds	**Netizens:** 7.8 millioh **PC Penetration:** 23% of households	**Netizens:** 4.2 million **PC Owners:** 35% of households	**Netizens:** 2.1 million **PC Owners:** 2.5% of households	**Netizens:** 10 million **PC Owners:** 1.7% of households

DATA: BUSINESS WEEK

COMMENTARY

By John Rossant

OLD WORLD, NEW MANDATE

When it comes to drive and enterprise, few can top Nicolas Taquet. The 30-year-old French biologist wowed colleagues with his work on anticancer compounds. But France's state-controlled medical system was so bureaucratic that Taquet couldn't even get the biological cultures he needed. And a take-home salary of $1,150 per month barely covered his rent.

By last June, Taquet had had enough: He emigrated to the U.S. to work as a researcher at the Baylor Institute for Immunology Research in Dallas for twice the money. Within five months he had a big raise and a promotion. "I'm so motivated here that I work weekends and nights," he says. "That wasn't the case back home."

There's no shortage of technology in Europe and Japan. But to benefit from a New Economy, they have to undergo some deep cultural shifts. What still counts in these hierarchical societies is not what works best, but what disturbs the least.

LABOR MAGNET. Western Europe and much of Asia are victims of their own success. Germany and Japan became industrial superpowers in a single generation. France enjoyed *les trente glorieuses*—30 years of postwar progress. These societies preferred planned economies over freewheeling markets, corporate hierarchies over chaotic startups, and social consensus over economic freedom. When it came to building traditional industries, this model worked splendidly.

But that risk-averse worldview is counterproductive in today's knowledge-based economies. It is entrepreneur-friendly cultures—open to the transfer of knowledge, to markets, and to exploring technology—that thrive today. "Openness really does matter to growth," says Risaburo Nezu, director of science, technology, and industry at the Organization for Economic Cooperation & Development. "And it's not only open markets, but the ability to attract knowledge and people." That's the lesson of Silicon Valley.

It's hard to legislate your way to that when you're up against old attitudes. Europe's monetary unification provides a regulatory basis for a New Economy. But risk remains taboo. There is still little labor mobility. Booming northeast Italy faces an unprecedented labor shortage. Yet just 300 miles to the south, youth unemployment is over 50%. Culture, not economics, explains this: Few want to risk the move. Europe's conservative culture also excludes outside which is why the best grad students of Asia and Africa s work in the U.S.

That's the bad news. The good news is that change is starting to percolate in these societies, and their cultures will change with it. In Japan and Korea, t old systems based on the *keiretsu* and *chaebol* are starting to unravel as op markets and IT work tra formative wonders.

MARKT CHANGE. In Germany, the hammerlock of Deutsche Bank, Commerzbank, and Dresdner Bank over 60% of industr is eroding. Suddenly, Frankfurt's Nasdaq-style Neuer Markt has become the symbol of German ca talism as the nation shifts from bank-oriented financ to equities. And as information flows become instantaneous, clubby business elites in Europe and Asia are looking like so many tired old men, behin the times.

Even in France, record numbers of graduates of the *grandes écoles*, which traditionally turn out the mandarins the French state, are opting for the private sector. Political leaders such as Socialist Prime Minister Lionel Jospin and Conservative President Jacques Chirac still insist they are maintaining the glorious structure of the state—even as the bricks get carted off.

Special Report

Europe and Asia have only begun what is going to be a cultural revolution. The outcome is un predictable. Europe and Japan have vastly more cultural and institutional baggage than the much younger U.S., so it was probably inevitable that change initially would be slower. But change can occur quickly. Europe's cell-phone usage, to take just one example, jumped 35% last year.

All this gives hope to Nicolas Taquet, who loves Dallas but misses France. "When and if it changes, I'll be going back," he says. It may be to a very different France than the one he left.

Rossant, based in Paris, is European regional editor

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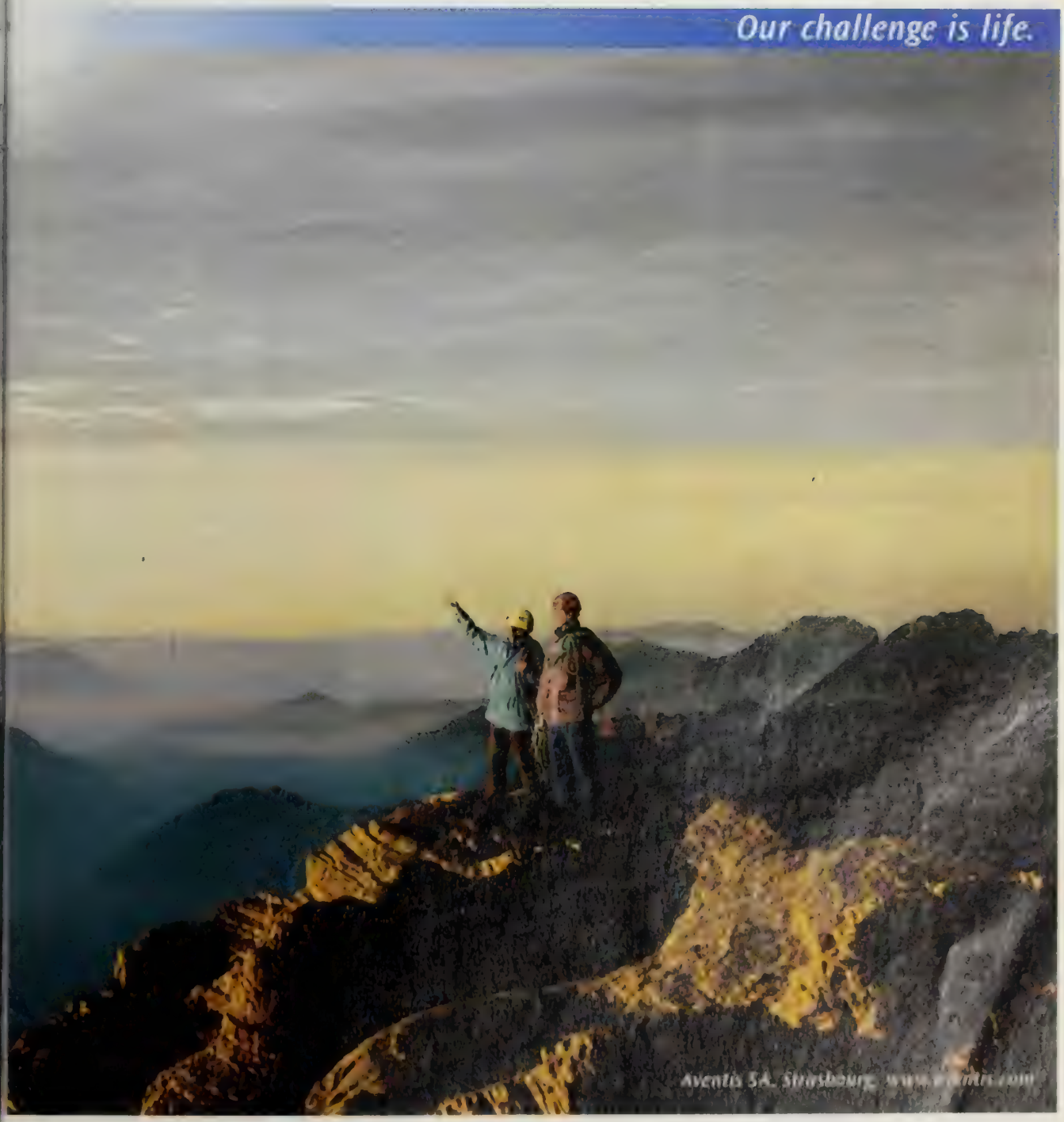

RADIO

THE CABLE TV OF RADIO?

Satellite audio could be the next big thing–or a big flop

Not many startups, let alone those in unproven businesses, can afford a private Sting concert. But the British rocker was grooving at a bash last November to help Sirius Satellite Radio Inc. open high-tech, 100,000-square-foot broadcast studios in New York's Rockefeller Center. "You're not a bad-looking crowd for a corporate gig," Sting told the hundreds on hand, who were milling among well-stocked bars and food tables.

To be sure, the coffers are flush, and the spirit is sky-high at Sirius and its rival, XM Satellite Radio. Sirius, which until the Sting concert was known as CD Radio Inc., has backing from the likes of Loral, Ford, financier Sid Bass, and Apollo Investments. And XM, based in Washington, is backed by General Motors, its DirecTV subsidiary, and radio giant Clear Channel Communications. Together, the two have raised nearly $2 billion, and the stock market has rewarded them handsomely: Since the beginning of 1997, Sirius shares are up tenfold, to $44. And since going public in October, XM stock has nearly tripled, to $35.

MARGOLESE: *He says Sirius can break even if 1% of drivers signs up*

100 NICHES. Why the fuss? Because investors think it could be the next hot entertainment-meets-technology business. Beginning early next year, both companies plan to use satellites to beam 100 niche channels of news, talk, and music. The channels will have digital, CD-quality sound and, in the case of Sirius, music channels will be free of commercials. If analysts are right, as many as 50 million people—most of them commuters, RV owners, and truckers—could sign up for these services by 2008 (chart). All that's required for radiophiles is that they either buy satellite radio receivers—or drive cars equipped with them—that run $125 more than typical car radios, plus shell out $10 a month in subscriber fees. "We think this is to radio what cable is to TV," says David Margolese, Sirius' chairman and chief executive.

But it remains to be seen whether this might instead be radio's equivalent of HDTV: a big yawn that few consumers will pay for. Beyond the challenge getting satellites into orbit, both co panies face competitive, regulatory, technical hurdles that could foul th plans. And even if their launches smoothly, growth could be curbed new rivals offering other alternativ such as wireless Web radio. "There a lot of risk factors, any one of wh could neutralize them in the mark place," says Lon Troxel, president chief executive of DMX LLC, which tributes digital music to more than million cable customers in the U. S.

MOVING TARGETS. Perhaps the bigg problem is that Sirius and XM Satell Radio may not be true satellite servi after all. For all their advances, t satellites they aim to launch can't del er a perfect, continuous stream of mu to mobile listeners from coast to coa Unlike satellite-TV services such DirecTV and EchoSt Communications Co satellite radio beams signals to moving ceivers, so reception often disrupted mountains, building and even trucks mo ing alongside cars. XM plans to build many as 1,700 transm ters in urban marke and Sirius, whose sat lites will perch high in the sky, plans build 110. The risk that even these r peater networks cou fail to provide t seamless service th subscribers will d mand. "If they don have enough repeate for quality servic they'll be out of bus ness," says Micha Alpert, president Alpert & Associates Washington, a satelli consultancy.

Then there's regul tory static. For Siriu and XM to start time, they'll need a no from the Federal Com munications Com mission, which wants the two to develo a receiver that will work for both an not lock consumers into one servic But the two operators hope to wait few years before designing a commo receiver to keep hardware costs dow and avoid a competitive free-for-all.

New technologies on the horizo

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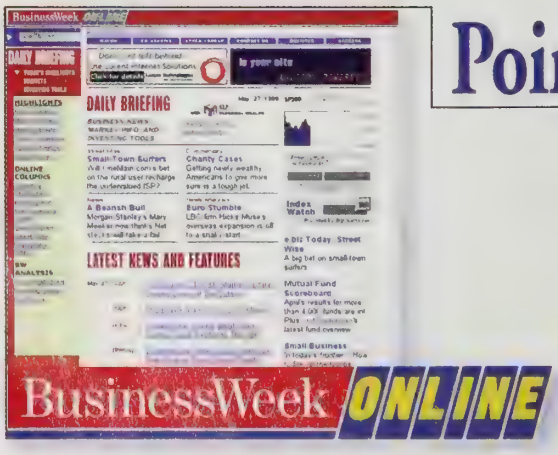

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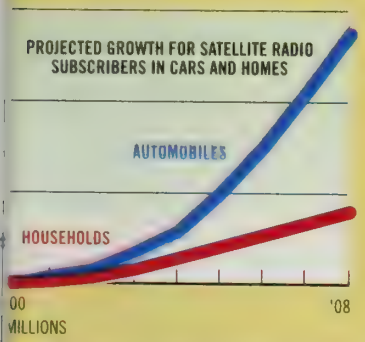
d also block progress. For instance, radios are being developed that will r instant access to thousands of ks stored as so-called MP3 files off Web. Good old terrestrial radio—h has boomed in the past several s thanks to the advertising bonan- also is in the midst of a slow tran- n to digital transmission. So satellite ices could lose their competitive in sound quality. Margolese says not worried, insisting that less than of commuters actually listen to CDs apes in their cars. "MP3s are pre- rded, so they're more hassle," he . Finally, the proliferation of high- d Internet connections to the home later via cellular systems, to the will give a boost to Internet radio. sts Tim Bratton, president of Inter- radio startup Tuneto.com, in Red-

WHO'S GOING TO TUNE IN?



DATA: C.E. UNTERBERG, TOWBIN

d City, Calif.: "Rather than just 100 nels, why not 10,000 or 1 million? t's where we're going."

or now, though, the shrewdest move he satellite radio entrepreneurs may e been to recruit Detroit. Beginning r this year, GM and Ford will install r partners' receivers in new mod- Other carmakers are expected soon nnounce their support for one oper- , or both. Some 16 million new cars sold annually, plus a further 6 mil- car stereos installed separately. , for all the big risks he's taking, golese says that for Sirius to break n on cash flow, he needs as sub- bers only 1% of the 180 million ve- s on the road in the U.S. today. is is one of the most compelling busi- ses to come along in a long time," William Kidd, a satellite analyst .E. Unterberg, Towbin. Perhaps. as Sting well knows, there's a big rence between being a headliner merely being a warm-up act for a star.

y Steven V. Brull in Las Vegas, bureau reports

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BIG DAY: *Budowski on the set of o OurBeginning's commercials*

MARKETING

NOW THAT'S A HAIL MARY PLAY

Inside a dot.com betting $5 million on the Super Bowl

To find the headquarters of OurBeginning.com Inc., head west from downtown Orlando about five miles until the neighborhood turns, uh, more interesting. OurBeginning's nondescript industrial building is easy to overlook among the shabby storefronts. So maybe this will help: It's across the street from the Pooch & Purr Grooming Salon and a few doors down from God's Miracle House of Prayer.

It's about the last place you'd expect to find a company that will share the stage with BMW, Visa, and other corporate giants that have purchased commercials on Super Bowl Sunday, Jan. 30. Ad time for the top-rated TV show of the year—the audience is expected to hit 135 million—runs as high as $3 million for a 30-second spot. At those prices, you would think that only companies with the flushest marketing budgets would give it a thought.

Yet OurBeginning, an online stationery e-tailer that launched its Web site only last April, is right in there with the big boys. So what if it has just 12 full-time employees and, according to Chief Executive Michael E. Budowski, has thus far racked up revenues of a little over $1 million? OurBeginning is paying to produce and air three pregame ads and a fourth spot to run during the game at a cost of about $4 million (plus $1 million for tech upgrades to handle the expected surge in site traffic).

"NOT NUTS." There's no doubting Budowski's nerve. But what about his sanity? "This is a risky move. It's certainly an aggressive strategy. But I'm not nuts," says the stocky 34-year-old with a grin. In fact, he admits to only one regret: "I wish I'd thought about buying more."

It's big talk from a small company. But OurBeginning isn't the first dot.com to use the Super Bowl to break out of the cyberclutter. Last year, job HotJobs.com and Monster.com mac splashes with clever commercials. ster averaged 600 job searches minute before the game, compared 2,900 after. "There aren't many to establish a brand as quickly mass audience," says Charlene Li, tracks dot.com advertisers for Forr Research Inc., a Cambridge (Mass ternet research firm.

The exposure is, presumably, paying off for Monster and Hot Both are back this year as Super advertisers, and HotJobs is a stock—its share price has tripled its initial public offering in August

It may not be as easy for this y larger class of dot.com advertis however: As many as 12 will be peting for the attention of beer-slos fans. For advertisers who cut thro the haze, though, the rewards car enormous. Some 8% of the audien almost 11 million viewers—concede they actually tune in to watch the c mercials, according to a study by ner Communications, a Baltimore-ba firm that conducts Super B research.

That helps explain why Budowsk laying down the biggest bet of his Already, the move has lifted Our ginning from obscurity onto the ra screen of Wall Street investors, a ma objective since the company plans IPO this year. At the same time, it' warning shot to competitors in fragmented online-printing ca gory. "It sends a ve clear message: 'I taking this ve

THE DOTS TRYING TO CONNECT

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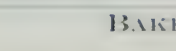

"I consider myself a visionary," says Budowski, who launched the stationery site last spring

seriously,'" says Li of Forrester Research.

The Super Bowl ad campaign also has given Budowski his 15 minutes of fame, which he is wearing comfortably. Tooling around Orlando at the wheel of his 1995 GMC Yukon last week, he said offhandedly: "I consider myself a visionary." Budowski has had the vision thing before, though on a smaller scale. At 20, he left community college to start an exterminating company that he ran out of his parents' garage in Crofton, Md. He still owns that business, which has since expanded to eight states, and several other enterprises, including a steakhouse.

OurBeginning began in the Budowski's Orlando home, where his wife, Susan ran a small business as a wedding consultant. Budowski persuaded her to expand into cyberspace and last spring launched a Web site. Customers click through pages showing wedding invitations, thank-you notes, birth announcements, and starting soon, business cards and letterheads. OurBeginning forwards the orders to outside printers that ship to customers under the OurBeginning label.

Budowski's Super Bowl dream revealed itself as he lay in bed last September. He remembers thinking: "Here's a way to put a turbocharger in this company." He quickly shared the idea with investor and Chief Operating Officer Michael C. Brandenberg and Susan. "The Super Bowl is huge," recalls Susan. "I thought he was kidding."

SNEAK PEEK. To pay for the spots, Budowski and Brandenberg spent the next three weeks raising $5 million through loans and sell-offs of equity positions. They bulked up the site so it could handle 2 million users a day, compared with the average of 10,000. And they hired Disney i.d.e.a.s., a unit of Walt Disney Co., to create slick comedy out of the seemingly humorless topics of stationery and personalized Post-It notes.

OurBeginning paid Disney $1 million for its four spots and a fifth that Super Bowl viewers won't see. ABC's ce found its language offensive and re ed it, citing "antisocial behavior," dowski notes. For OurBeginning, 's case either of exquisite luck or sh marketing, because the company to post the banned ad on its Web si a means of generating additional tr "It never hurts for people to be ta about an ad too risqué for TV," David Blum, a vice-president at E Communications. In another effo drive traffic, OurBeginning will $250,000 to a lucky Web surfer who isters at its site. Budowski say hopes to create a data base of 5 mi customers, including many who h about the site on the big game.

If a tiny fraction uses OurBegin to buy business cards and party in tions, Budowski's bet will have paid And if they don't? "It doesn't fold company," he says. "I like living on edge, but not that close to the edge

By Mark Hyman in Orla

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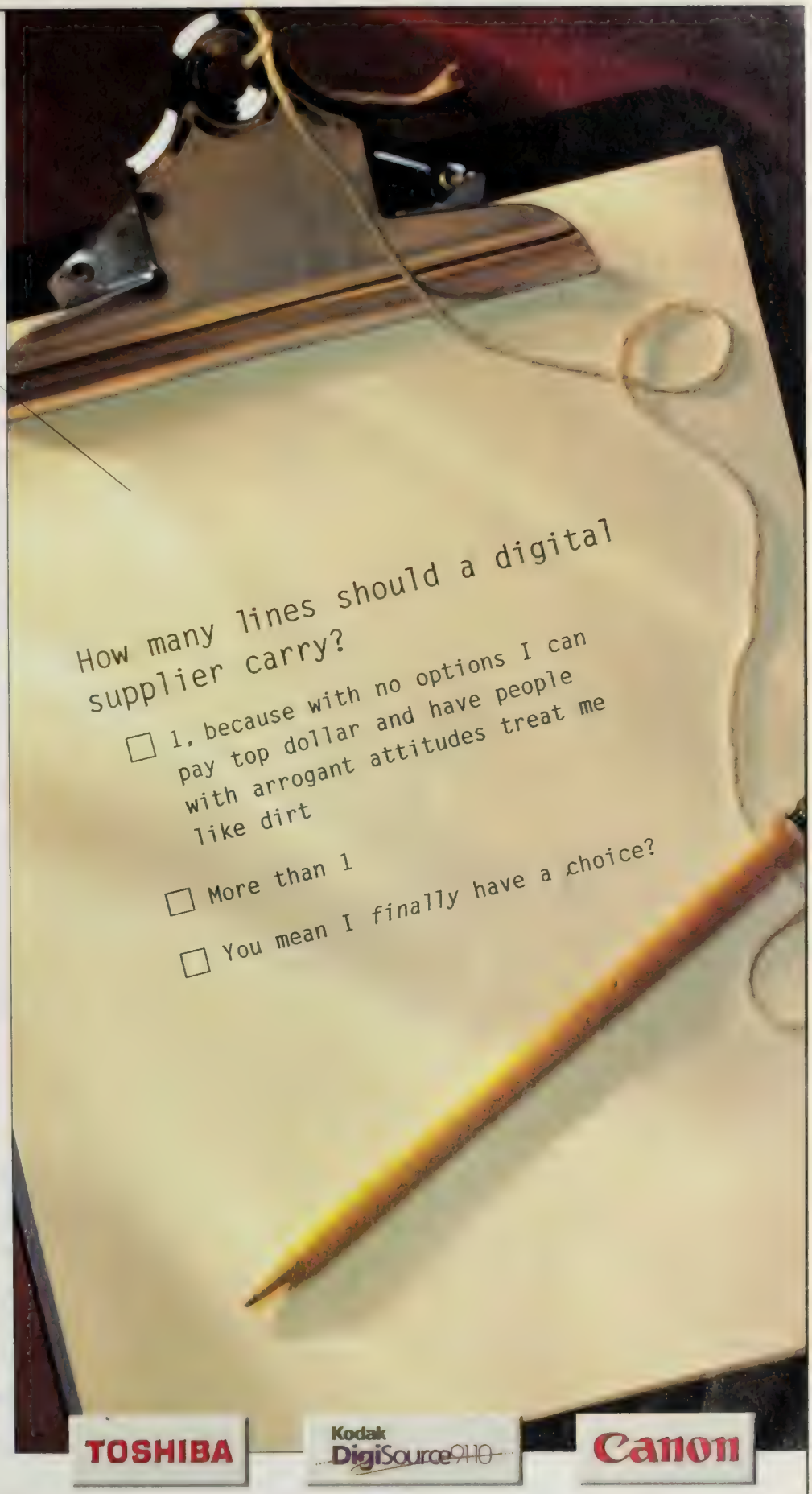

BOND FUNDS

THE FEW, THE PROUD ...THE PROFITABLE

After a bad year, opportunities in muni and high-yield funds

When the stock market is sizzling, bond mutual funds are a hard sell. So what chance do bond funds have of attracting new investor dollars if interest rates are rising, prices are falling, and net asset values are shrinking? Not much. No wonder the cash stream going toward bond funds nearly dried up last year. For municipal-bond funds, it was even worse, with investors taking more money out than they put in—a trend that has continued into the new year.

Sometimes the best opportunities are in what's ignored or even shunned, and that's why bond funds deserve your attention. To do that, we bring you the bond-fund installment of the BUSINESS WEEK Mutual Fund Scoreboard.

In the tables that start on page 107, we report on 653 taxable and tax-exempt funds. We examine one-year, three-year, and five-year total returns. (Total return includes appreciation plus reinvestment of dividends and capital gains before taxes.) We report on portfolio data such as yield and maturity and operational information such as sales charges and expenses. And on BUSINESS WEEK's Web site, www.businessweek.com, additional data on these funds and nearly 1,100 more in an interactive Scoreboard allow you to screen funds using various criteria. All the data are prepared by Morningstar Inc.

HONOR ROLL. BUSINESS WEEK also delivers something unique: our own proprietary mutual-fund ratings. Each fund with at least five years of performance history is rated on the basis of its risk-adjusted total returns. Those with the best risk-adjusted numbers earn A ratings.

This year, 104 bond funds earned A's (table, page 105). They are a varied lot, ranging from funds with ultrashort maturities like Strong Advantage and SSgA Yield Plus, which take almost no interest-rate risk, to Franklin High Yield Tax-Free Income A and Scudder High-Yield Tax-Free, which hold portfolios of long-term bonds that can get clocked when rates go up. The list also includes funds that prefer taking credit risk to interest-rate risk, such as MSDW Prime Income Trust Fund and Columbia High-Yield Fund. Some of the A-list funds, mainly ones for munis, actually lost money last year. Still, what all have in common is a high amount of return relative to the risk they took with your money.

The A list also includes 10 convertible-bond funds, which posted the highest absolute returns of them all. That's because convertible bonds are linked in value to the issuer's stock price. [illegible] stock shoots up, the convertibl[illegible] share in the price gain. "With co[illegible]ible bonds, we hope to capture 7[illegible] the upside potential in a stock but [illegible] only 25% of the downside," says J[illegible] Calamos, manager for three co[illegible]ible-bond funds which all earned A[illegible]ings on the BUSINESS WEEK Score[illegible] The best-performing of them [illegible] Calamos Growth & Income A, up [illegible] in 1999, and an average of 27.9% a[illegible] over the last five years.

With the help of the stock ma[illegible] the convert funds trounced the [illegible] sorts of bond funds over the perio[illegible] one, three, and five years (table). [illegible] 31.9% total return earned last yea[illegible] just a bit better than the average [illegible]ty mutual fund (BW—Jan. 24). Em[illegible]ing-markets bond funds looked s[illegible] last year, up 25.9%. But that was [illegible] two years of horrid returns [illegible] fact, the three-year average a[illegible] return for these volatile fun[illegible] just 1.7%. For 1999, the ave[illegible] taxable bond fund earned [illegible] 1.3%. Tax-free funds were e[illegible] worse, with returns of –3.5%.

All told, last year was the w[illegible] for bond funds since 1994. T[illegible] because interest rates have [illegible] on a steady climb since the O[illegible]ber, 1998, lows set in the aftern[illegible] of the Russian-debt default and [illegible] near-collapse of Long-Term C[illegible]tal Management. By the star[illegible] 1999, the 30-year long-term U[illegible] Treasury bond yielded 5.1%; [illegible] 10-year posted 4.6%. Neither [illegible] expected to move much higher[illegible]

The pundits were wrong. [illegible] U.S. economy strengthened as [illegible]ployment, consumer spending, [illegible] business investment kept climb[illegible] The global economy also picked [illegible] and many investors sold bonds [illegible] dollars to seek opportunities o[illegible]side the U.S.—sending bonds r[illegible]ing and interest rates higher.

TIGHTENING UP. While inflation [illegible] not—and is still not—a proble[illegible] the Federal Reserve starting ra[illegible]ing short-term interest rates to [illegible] to cool the economy and preve[illegible] inflation from taking hold. The c[illegible]tral bank raised short-term rates 0.7[illegible] in three quarter-point increments. [illegible] yearend, the 30-year Treasury yield w[illegible] 6.49% and the 10-year, 6.44%. By Ja[illegible] 18, the yields on both were 6.74%.

And the Fed isn't done yet. The ma[illegible]ket has already figured on another qua[illegible]ter-point hike in early February a[illegible] one in mid-March. And some bond-fu[illegible] managers, such as Jeffrey A. Koch

The Bond-Fund Averages

Rising interest rates took their toll on most bond funds

CATEGORY	AVERAGE ANNUAL TOTAL RETURN* 1999	1997-99	1995-99
CONVERTIBLES	31.9%	16.7%	17.5%
EMERGING MARKETS BOND	25.9	1.7	11.2
ULTRASHORT	4.7	5.2	5.6
HIGH-YIELD	4.3	5.5	9.3
MULTISECTOR	2.3	4.1	7.6
SHORT (GENERAL)	2.1	5.0	6.2
SHORT GOVERNMENT	1.6	4.7	5.9
MUNICIPAL SHORT	0.7	3.6	4.5
INTERMEDIATE GOVERNMENT	–1.2	4.8	6.7
INTERMEDIATE (GENERAL)	–1.2	4.9	6.9
MUNI. CALIF. INTERMEDIATE	–2.0	3.7	6.0
MUNI. NATIONAL INTERMEDIATE	–2.0	3.7	5.7
MUNI. N.Y. INTERMEDIATE	–2.5	3.6	5.7
MUNI. SINGLE-STATE INTERMEDIATE	–2.5	3.3	5.5
LONG (GENERAL)	–2.7	4.7	7.6
INTERNATIONAL BOND	–3.6	2.4	6.2
MUNI. SINGLE-STATE LONG	–4.3	3.3	5.9
MUNI. NATIONAL LONG	–4.5	3.3	6.0
MUNI. N.Y. LONG	–4.8	3.2	5.9
MUNI. CALIFORNIA LONG	–5.1	3.3	6.3
LONG GOVERNMENT	–8.0	5.1	7.7
TAXABLE BOND FUNDS	1.3	5.0	7.3
TAX-FREE BOND FUNDS	–3.5	3.4	5.8
ALL BOND FUNDS	–1.0	4.2	6.5

*Appreciation plus reinvestment of dividends and capital gains before taxes

DATA: MORNINGSTAR INC.

A-rated Strong Advantage Fund, c there could be a couple of more s of the monetary screws this year re the central bank is done. "Long- rates are attractive at current lev- Koch says, "but it may be a tad to move into longer-term bonds." current yield on Koch's fund, which s, on average, A-rated bonds, is a generous 6.9%. With a portfolio maturity of less than one year, there's little damage to be done if rates move higher.

Some big investors are starting to lengthen their portfolios in anticipation that interest rates are at or near a peak. "There's already a lot of bad news on inflation that's built into the current level of rates," says Ian A. MacKinnon, who oversees bond fund management for Vanguard Group. "We've backed up nearly two percentage points from the low in interest rates, while the rise in inflation rate is less than half of that."

William H. Gross, who oversees some $180 billion in fixed-income investments for PIMCO Advisors, also believes that, with long-term rates near 7%, bonds

The Bond Fund A-List

The 104 funds that earned A's—our rating for superior risk-adjusted returns over the past five years

ND	AVERAGE ANNUAL TOTAL RETURN*	INVESTMENT CATEGORY
I TAX-FREE INTERMEDIATE	5.4%	Muni. Short
LANCE MUNI. INCOME II VA. B**	7.8	Muni. S-S Long
ERICAN CENTURY CALIF. HI-YLD. MUNI.	7.4	Muni. Calif. Long
ERICAN CENTURY CALIF. LTD . T/F INV.**	4.7	Muni. Short
ERICAN CENTURY FLA. INTM. MUNI. INV**	6.2	Muni. S-S Interm.
ERICAN HIGH-INCOME MUNI. BOND	7.5	Muni. Ntl. Interm.
SET MGMT. ADJUSTABLE RATE	6.4	Ultrashort
INSTEIN CALIF. MUNICIPAL	5.7	Muni. Calif. Interm.
INSTEIN DIVERSIFIED MUNI.	5.5	Muni. Ntl. Interm.
INSTEIN SHORT DUR. CALIF. MUNI.**	3.9	Muni. Short
INSTEIN SHORT DUR. DIVERS. MUNI.**	4.0	Muni. Short
INSTEIN SHORT DUR. N.Y. MUNI.**	3.8	Muni. Short
INSTEIN SHORT DURATION PLUS	5.9	Short (Gen.)
LAMOS CONVERTIBLE A**	22.3	Convertibles
LAMOS GROWTH & INCOME A**	27.9	Convertibles
LAMOS STRATEGIC INCOME A**	12.0	Convertibles
LVERT INCOME A	10.2	Intermediate (Gen.)
LVERT TAX-FREE RES. LIMITED-TERM A	4.1	Muni. Short
LORADO BONDSHARES**	7.3	Muni. S-S Interm.
LUMBIA HIGH-YIELD**	11.1	High-Yield
ONTRYWIDE ADJ. RATE U.S. GOVT.**	5.7	Ultrashort
VIS CONVERTIBLE SECURITIES A	18.5	Convertibles
LAWARE NATIONAL HIGH-YIELD MUNI. A**	6.7	Muni. Ntl. Interm.
EYFUS CORE BOND	9.4	Multisector
EYFUS SHORT-INTERM. MUNI. BD	4.6	Muni. Short
EYFUS SHORT-TERM INCOME	7.2	Short (Gen.)
PREE KY. TAX-FREE INCOME	5.9	Muni. S-S Interm.
PREE TENN. TAX-FREE INCOME**	7.3	Muni. S-S Long
PREE TENN. TAX-FREE SHORT-MED.**	4.4	Muni. Short
TON VANCE INCOME OF BOSTON A	12.0	High-Yield
LIPSE ULTRA SHORT-TERM INCOME**	6.0	Ultrashort
ERGREEN FLA. HIGH-INCOME MUNI. A	7.1	Muni. S-S Long
DELSIOR SHORT-TERM TAX-EXEMPT**	4.3	Muni. Short
DERATED LIMITED-TERM MUNI. A**	4.4	Muni. Short
TW LIMITED DURATION**	6.6	Short (Gen.)
TW U.S. SHORT-TERM	5.2	Ultrashort
TW WORLDWIDE-HEDGED	8.9	International
FELITY CONVERTIBLE SECURITIES	21.4	Convertibles
DELITY HIGH-INCOME	12.0	High-Yield
DELITY SPARTAN INTERM. MUNI.	6.3	Muni. Ntl. Interm.
DELITY SPARTAN SHORT-INTERM. MUNI.	4.8	Muni. Short
IRST AMERICAN LIMITED-TERM INCOME A**	5.8	Short (Gen.)
IRST HAWAII INTERMEDIATE MUNI.**	4.9	Muni. Short
ANKLIN CALIF. INTERM.-TERM TAX-FREE	6.7	Muni. Calif. Interm.
ANKLIN HIGH YIELD TAX-FREE INCOME A	6.7	Muni. Ntl. Long
RBOR SHORT DURATION	6.0	Short (Gen.)
MESTEAD SHORT-TERM BOND	6.4	Short (Gen.)
TCHKIS & WILEY LOW DURATION	7.1	Short (Gen.)
TCHKIS & WILEY SHORT-TERM INVST.**	6.1	Ultrashort
UGH FLA. TAX-FREE SHORT-TERM**	4.6	Muni. Short
NTINGTON MORTGAGE SECURITIES INV.**	10.1	Interm. Government
NUS FLEXIBLE INCOME	9.6	Multisector

FUND	AVERAGE ANNUAL TOTAL RETURN*	INVESTMENT CATEGORY
LIMITED TERM N.Y. MUNICIPAL A	5.5%	Muni. Short
MAINSTAY CONVERTIBLE B	15.2	Convertibles
MAINSTAY HIGH-YIELD CORP. BOND B	11.4	High-Yield
MAS HIGH-YIELD INSTL.	13.0	High-Yield
MERRILL LYNCH MUNI. LTD. MAT. D**	4.0	Muni. Short
MERRILL LYNCH SR. FLOATING RATE	6.1	Ultrashort
MONTEREY PIA SHORT-TERM GOVT.**	6.2	Ultrashort
MONTGOMERY SHORT DUR. GOVT. BD. B	6.7	Short Government
MORGAN GRENFELL MUNICIPAL BOND	6.2	Muni. Ntl. Interm.
MSDW PRIME INCOME TRUST	7.4	Ultrashort
MSDW SHORT-TERM BOND	6.5	Short (Gen.)
NATIONS CAPITAL INCOME INV. A**	19.6	Convertibles
NATIONS SHORT-TERM MUNI. INV. A**	4.7	Muni. Short
PAYDEN & RYGEL SHORT DUR. TAX-EX. R**	4.1	Muni. Short
PILGRIM CONVERTIBLE C	25.8	Convertibles
PIMCO FOREIGN BOND INSTL.	12.0	International
PIMCO HIGH-YIELD INSTL.	10.8	High-Yield
PIMCO LOW DURATION INSTL.	7.3	Short (Gen.)
PIMCO SHORT-TERM INSTL.	6.7	Ultrashort
SCHWAB CALIF. SHORT-INTRM. TAX-FREE**	5.0	Muni. Short
SCUDDER HIGH-YIELD TAX-FREE	7.7	Muni. Ntl. Long
SCUDDER LIMITED-TERM TAX-FREE**	4.9	Muni. Short
SEI DAILY CORP. DAILY INCOME A	6.0	Short (Gen.)
SEI TAX-EXEMPT PENN. MUNI. BOND A**	5.6	Muni. S-S Interm.
SIT MINN. TAX-FREE INCOME	5.5	Muni. S-S Interm.
SIT TAX-FREE INCOME	6.0	Muni. Ntl. Interm.
SSGA YIELD PLUS	5.6	Ultrashort
STEIN ROE HIGH-YIELD MUNIS	6.7	Muni. Ntl. Long
STRONG ADVANTAGE INV.	6.1	Ultrashort
STRONG SHORT-TERM BOND INV.	6.9	Short (Gen.)
STRONG SHORT-TERM GLOBAL BOND INV.**	7.4	Multisector
STRONG SHORT-TERM MUNI. BOND INV.	4.8	Muni. Short
THORNBURG FLA. INTERM. MUNI. A**	5.5	Muni. S-S Interm.
THORNBURG LTD.-TERM MUNI. CALIF. C**	4.7	Muni. Short
THORNBURG LTD.-TERM NATL. A	4.9	Muni. Short
THORNBURG N.M. INTERM. MUNI. A	5.3	Muni. S-S Interm.
T. ROWE PRICE MD. SHORT-TERM T/F**	4.3	Muni. Short
T. ROWE PRICE SUMMIT MUNI. INTERM.**	6.2	Muni. Ntl. Interm.
T. ROWE PRICE TAX-FREE SHORT-INTERM.	4.7	Muni. Short
T. ROWE PRICE VA. SHORT-TERM T/F**	4.3	Muni. Short
UNITED MUNICIPAL HIGH-INCOME A	7.2	Muni. Ntl. Long
USAA TAX-EXEMPT INTERM.-TERM	6.4	Muni. Ntl. Interm.
USAA TAX-EXEMPT SHORT-TERM	5.0	Muni. Short
VALUE LINE CONVERTIBLE**	18.3	Convertibles
VAN KAMPEN HARBOR A	20.8	Convertibles
VAN KAMPEN HIGH-YIELD MUNI. A	7.1	Muni. Ntl. Interm.
VAN KAMPEN PRIME RATE INCOME	6.3	Ultrashort
VANGUARD CALIF. INS. INTERM. TAX-EXEMPT	6.3	Muni. Calif. Interm.
VANGUARD HIGH-YIELD CORP.	9.6	High-Yield
VANGUARD LIMITED-TERM TAX-EXEMPT	4.8	Muni. Short
VANGUARD SHORT-TERM CORP.	6.8	Short (Gen.)
VANGUARD SHORT-TERM TAX-EXEMPT	4.1	Muni. Short

995-99, appreciation plus reinvestment of dividends and capital gains before taxes

**More fund data on Business Week Online

DATA: MORNINGSTAR, INC.

are attractive. "That's a yield you would expect with a 3% inflation rate, and we don't have that," says Gross, who runs four of the funds on BUSINESS WEEK's A list. "In fact, we believe that the U.S. and global economies are in a disinflationary mode."

Better opportunities might be found in other sorts of bond funds, especially those that invest in tax-free bonds. They were especially bludgeoned last year, hurt both by rising rates and a glut of supply that came to market as issuers rushed to get their Y2K-funding needs met ahead of schedule. That supply was coming on line as investors were bailing out of the funds—some $1 billion a week in net outflow in the latter part of the year, according to AMG Data Services, which tracks flows to funds.

BARGAIN MUNIS. The upshot is that many muni bonds are cheap, trading at 95% or so of the yield on the comparable taxable Treasury bond. With a dearth of supply this year, any incremental pickup in demand will send prices higher—and give muni funds a chance for some modest capital gains. In the meanwhile, yields aren't bad, either: about 5% for intermediate-term funds. To beat that with a taxable bond, an investor in the 31% tax bracket would need to earn 7.25% or more.

The only way to do that is in a high-yield fund—another sector under pressure from rising interest and default rates. That pushed yields on the bonds to between 9% and 11%, which makes them attractive relative to other taxables. Defaults? Not a problem for a fund with a good research capability. "As long as the economy is fairly healthy, high-yield does well," says Tom Sorveiro, portfolio manager of the top-rated Fidelity High-Income Fund.

Even if interest rates are peaking, neither Gross nor MacKinnon foresees a big bond rally. "Stocks rule the day," says Gross. "There's no bull market in bonds until investors start to lose interest in stocks." Most likely, says Gross, bond investors will earn a total return equal to the yield on their bonds. That may not sound like much, but after the drubbing bonds took in 1999, it will no doubt be a welcome relief.

By Jeffrey M. Laderman

BusinessWeek ONLINE

A greatly expanded, interactive version of this Scoreboard is available at www.businessweek.com. It features nearly 1750 bond funds, more data for each than in the magazine, and several ways of searching for them.

The Best by Categories

Rating bond funds against their peers, we awarded A's to these funds

FUND	TOTAL RETURN*
CONVERTIBLES	
CALAMOS GROWTH & INCOME A**	27.9%
HIGH YIELD	
COLUMBIA HIGH-YIELD**	11.1
MAINSTAY HIGH-YIELD CORP. BOND B	11.4
MAS HIGH-YIELD INSTL.	13.0
PIMCO HIGH-YIELD INSTL.	10.8
INTERMEDIATE (GENERAL)	
CALVERT INCOME A	10.2
DREYFUS BASIC GNMA	7.6
FEDERATED MANAGED INCOME SEL.**	7.5
FPA NEW INCOME	7.3
HOTCHKIS & WILEY TOTAL RETURN	8.4
MAS FIXED-INCOME INSTL.	8.3
MAS SPECIAL PURPOSE F/I INSTL.	8.5
MONETTA INTERMEDIATE BOND**	8.0
PIMCO TOTAL RETURN INSTL.	8.6
SMITH BREEDEN INTERM. DUR. GOVT.	7.5
WARBURG PINCUS FIXED-INC. COMM.	7.2
WEITZ FIXED-INCOME**	7.2
INTERMEDIATE GOVERNMENT	
AMERICAN CENTURY GNMA INV.	7.3
ATLAS U.S. GOVT. & MORTGAGE A	6.8
FIDELITY GINNIE MAE	7.5
FRANKLIN STRATEGIC MORTGAGE**	8.0
HUNTINGTON MORTGAGE SECS. INV.**	10.1
LEXINGTON GNMA INCOME	7.9
SEI DAILY GNMA A**	7.5
VANGUARD GNMA	7.8
INTERNATIONAL	
FFTW WORLDWIDE-HEDGED	8.9
GOLDMAN SACHS GLOBAL A	8.9
PAYDEN & RYGEL GLOBAL FIX.-INC. R	8.6
PIMCO FOREIGN BOND INSTL.	12.0
LONG (GENERAL)	
STRONG CORPORATE BOND INV.	9.6
VANGUARD PREFERRED STOCK	9.2
LONG GOVERNMENT	
GALAXY II U.S. TREASURY INDEX RET.	7.1
MULTISECTOR	
DREYFUS CORE BOND	9.4
STRONG SHORT-TERM GLOBAL BOND**	7.4
SHORT (GENERAL)	
DREYFUS SHORT-TERM INCOME	7.2
HOTCHKIS & WILEY LOW DURATION	7.1
PIMCO LOW DURATION INSTL.	7.3
SEI DAILY CORP. DAILY INCOME A	6.0
STRONG SHORT-TERM BOND INV.	6.9
SHORT GOVERNMENT	
EVERGREEN CAP. PRES. & INCOME A**	5.9
MERRILL LYNCH ADJ. RATE SECS. B**	5.5
MONTGOMERY SHORT DUR. GOVT. BD. R	6.7
SEI DAILY SHORT-DUR. GOVT. A	6.4
ULTRASHORT	
MSDW PRIME INCOME TRUST	7.4
MUNICIPAL CALIF. INTERM.	
VANGUARD CALIF. INS. INTERM. TAX-EX.	6.3

FUND	TOTAL RETURN*
MUNICIPAL CALIF. LONG	
ALLIANCE MUNI. INCOME CALIF. A	8.2
AMERICAN CENT. CALIF. HI-YLD. MUNI.	7.4
USAA CALIF. BOND	7.5
MUNICIPAL NATIONAL INTERM.	
AMERICAN HIGH-INCOME MUNI. BOND	7.5
FIDELITY SPARTAN INTERM. MUNI.	6.3
MORGAN GRENFELL MUNI BOND	6.2
SIT TAX-FREE INCOME	6.0
VAN KAMPEN HIGH-YIELD MUNI. A	7.1
MUNICIPAL NATIONAL LONG	
FRANKLIN FEDERAL TAX-FREE INCOME A	6.2
FRANKLIN HIGH YIELD TAX-FREE INCOME A	6.7
PAINEWEBBER MUNI. HIGH-INC. A**	6.5
SCUDDER HIGH-YIELD TAX-FREE	7.7
STEIN ROE HIGH-YIELD MUNIS	6.7
STRONG HIGH-YIELD MUNI. BOND	6.4
T. ROWE PRICE SUMMIT MUNI. INCOME**	7.1
UNITED MUNICIPAL HIGH-INCOME A	7.2
MUNICIPAL N.Y. INTERMEDIATE	
BERNSTEIN N.Y. MUNICIPAL	5.5
MUNICIPAL N.Y. LONG	
ALLIANCE MUNI. INCOME N.Y. A	7.5
USAA N.Y. BOND**	6.6
MUNICIPAL SHORT	
DREYFUS SHORT-INTERM. MUNI. BOND	4.6
USAA TAX-EXEMPT SHORT-TERM	5.0
VANGUARD SHORT-TERM TAX-EXEMPT	4.1
MUNI. SINGLE-STATE INTERM.	
AMERICAN CENT. FLA. INTRM. MUNI. INV.**	6.2
COLORADO BONDSHARES**	7.3
DUPREE KY. TAX-FREE INCOME	5.9
SEI TAX-EXEMPT PENN. MUNI. BOND A**	5.6
SIT MINN. TAX-FREE INCOME	5.5
THORNBURG FLA. INTERM. MUNI. A**	5.5
THORNBURG N.M. INTERM. MUNI. A	5.3
MUNI. SINGLE-STATE LONG	
ALLIANCE MUNI. INCOME II ARIZ. A**	7.6
ALLIANCE MUNI. INCOME II FLA. A**	8.0
ALLIANCE MUNI. INCOME II MASS. A**	7.9
ALLIANCE MUNI. INCOME II MICH. B**	7.7
ALLIANCE MUNI. INCOME II OHIO B**	6.7
ALLIANCE MUNI. INCOME II PENN. A**	7.7
ALLIANCE MUNI. INCOME II VA. B**	7.8
DUPREE TENN. TAX-FREE INCOME**	7.3
EVERGREEN FLA. HIGH-INC. MUNI. A	7.1
FIDELITY SPARTAN CONN. MUNI. INCOME	6.7
FIDELITY SPARTAN FLA. MUNI. INCOME	6.8
FIDELITY SPARTAN MD. MUNI. INCOME**	6.7
FIDELITY SPARTAN MASS. MUNI. INCOME	6.7
FIDELITY SPARTAN MINN. MUNI. INCOME	6.2
FIDELITY SPARTAN N.J. MUNI. INCOME	6.3
FIDELITY SPARTAN PENN. MUNI. INCOME	6.5
FRANKLIN P.R. TAX-FREE INCOME A	6.2
SCUDDER MASS. TAX-FREE	6.7
SCUDDER OHIO TAX-FREE**	6.6
T. ROWE PRICE MD. TAX-FREE	6.2
VANGUARD PENN. INS. LONG TAX-EXEMPT	6.3

*1995-99, appreciation plus reinvestment of dividends and capital gains before taxes
**More fund data on Business Week Online

DATA: MORNINGSTAR INC.

Bond Funds

MUTUAL FUND SCOREBOARD

ow to Use the Tables

JSINESS WEEK RATING
atings measure risk-adjusted erformance. This shows how ell a fund performed relative to her funds and relative to the vel of risk it took. Risk-adjusted erformance is determined by btracting a fund's risk-of-loss ctor (see below) from its hisric total return. Performance lculations are based on the ve-year time period between n. 1, 1995, and Dec. 31, 999. For BW ratings, funds are vided into taxable and tax-exnpt funds. Funds are also rated gainst others in their category. atings are based on a normal atistical distribution within ch group and awarded as llows:

A	SUPERIOR
B+	VERY GOOD
B	ABOVE AVERAGE
C	AVERAGE
C–	BELOW AVERAGE
D	POOR
F	VERY POOR

RISK
The risk-of-loss factor is the potential for losing money in a fund, calculated as follows: The monthly Treasury bill return is subtracted from the fund's total return for each of the 60 months in the rating period. When a fund has underperformed Treasury bills, the result is negative. The sum of these negative numbers is then divided by the number of months in the period. The result is a negative number, and the greater its magnitude, the higher the risk of loss.

PERFORMANCE COMPARISON
The tables provide performance data over three time periods. Here are equivalent total returns for the Lehman Brothers bond indexes during those periods:

	GOVT./CORP.	MUNI.
1999	-2.2%	-2.1%
3-year average (1997-99)	5.5%	4.4%
5-year average (1995-99)	7.6%	6.9%

FUND CATEGORIES
General bond funds are classified long-term (CL), intermediate-term (CI), short-term (CS), and ultra-short (UB); government, long (GL), intermediate (GI), and short (GS); municipal, national long (ML), national interm. (MI), single-state long (SL), single-state interm. (SI), Calif. long (MC), Calif. interm. (MF), New York long (MY), New York interm. (MN), and short-term (MS); specialized funds, convertible (CV), high-yield (HY), international (IB), emerging markets (EB), and multisector (MU).

SALES CHARGE
The cost of buying a fund, commonly called the "load." Many funds take loads out of initial investments, and for ratings purposes, performance is reduced by these charges. Loads on withdrawals can take two forms. Deferred charges decrease over time. Redemption fees are imposed whenever investors sell shares. Funds with none of these charges are called "no-load."

EXPENSE RATIO
Fund expenses for 1999 as a percentage of average net assets. The measures show how much shareholders pay for fund management. Footnotes indicate 12(b)-1 plans, which allocate shareholder money for marketing costs. The average expense ratio is 1.03% for taxable funds, 0.85% for tax-free funds.

TOTAL RETURN
A fund's net gain to investors, including reinvestment of dividends and capital gains at month-end prices.

YIELD
Income distributions during 1999 expressed as a percent of net asset value, adjusted for capital gains.

MATURITY
The average maturity of the securities in a fund's portfolio, weighted by market value.

HISTORY
A fund's relative performance during the five 12-month periods from Jan. 1, 1995, to Dec. 31, 1999. The numbers designate which quartile the fund was in during the period: 1 for the top quartile; 2 for the second quartile; 3 for the third quartile; 4 for the bottom quartile. No number indicates no data for that period.

TELEPHONE NUMBERS
See index on page 118.

FUND	RATING (COMPARES RISK-ADJUSTED PERFORMANCE OF EACH FUND AGAINST ALL FUNDS)	CATEGORY	RATING (RATING COMPARES FUND WITHIN CATEGORY)	SIZE ASSETS $MIL.	% CHG. 1998-99	FEES SALES CHARGE (%)	EXPENSE RATIO (%)	PERFORMANCE TOTAL RETURN (%) 1 YR.	3 YR.	5 YR	PORTFOLIO YIELD (%)	MATURITY (YEARS)	HISTORY RESULTS VS. ALL FUNDS
TAXABLE													
AARP BOND FUND FOR INCOME		CI		200.1	2	No load	0.19	–0.8	NA	NA	7.0	8.2	2 2
AARP GNMA & U.S. TREASURY	B	GS	C	4014.8	–11	No load	0.61	0.6	5.1	6.5	6.4	9.5	4 2 3 3 1
AARP HIGH-QUALITY SHORT TERM	B	CS	C–	390.9	–11	No load	0.90	2.2	5.2	7.0	5.7	2.6	2 4 3 3 1
ABN AMRO FIXED-INCOME COMM.	C	CI	C	189.1	11	No load	0.72	–2.1	4.6	6.9	5.9	NA	2 3 3 1 3
ACCESSOR MORTGAGE SECS. ADV. (a)	B+	CS	C	127.4	–1	No load	0.88	1.2	5.7	7.5	6.1	8.8	3 1 1 2 1
ADVANCE CAPITAL I RETRMT. INC.	C	CL	B+	214.2	–3	No load	0.79 †	–2.3	5.2	8.4	7.4	NA	1 2 1 2 3
AIM FLOATING RATE		UB		436.6	52	3.00 **	1.50	5.8	NA	NA	7.4	NA	3 1
AIM HIGH-YIELD B	D	HY	D	1555.6	–14	5.00 **	1.61 †	1.8	2.3	7.3	10.5	NA	4 4 4 4 4
AIM INCOME A	C	MU	C–	391.8	–2	4.75	0.91 †	–2.7	4.6	8.8	7.5	NA	1 3 1 3 3
AIM INTERMEDIATE GOVT. A	C–	GI	C	238.3	–2	4.75	1.00 †	–1.7	5.1	6.7	7.1	NA	3 3 3 1 2
AIM LTD. MAT. TREASURY RET.	B+	GS	B+	371.8	–9	1.00	0.54 †	2.8	4.9	5.8	4.8	NA	4 1 3 2 1
AIM STRATEGIC INCOME B	F	IB	C–	111.6	–39	5.00 **	2.21 †	–1.2	0.8	7.5	5.7	NA	3 3 4 4 2
ALLEGHANY/CHICAGO TRUST BOND (b)	B	CI	B+	133.4	–15	No load	0.80 †	–0.4	5.3	7.4	6.5	8.1	3 2 2 1 1
ALLIANCE BOND CORP. BOND B	D	CL	C–	581.2	–14	3.00 **	1.82 †	1.3	3.9	9.3	8.0	18.8	1 3 1 1 1
ALLIANCE BOND U.S. GOVT. A	D	GI	F	430.0	9	4.25	1.08 †	–3.2	4.7	6.1	7.5	NA	3 4 4 4 3
ALLIANCE GLOBAL DOLLAR GOVT. B	F	EB	D	116.9	2	3.00 **	2.31 †	25.8	2.0	12.7	10.9	13.3	1 1 2 3 1
ALLIANCE HIGH YIELD B		HY		513.2	38	4.00 **	2.03 †	–2.6	NA	NA	11.2	7.7	4 3
ALLIANCE MORTGAGE SECS. INCOME A	B	GS	C–	443.7	–4	4.25	1.99 †	0.8	5.1	6.9	6.7	NA	3 2 2 3 1
ALLIANCE MULTI-MARKET STRATEGY A	B	IB	B+	382.8	–18	4.25	1.74 †	2.6	5.4	7.6	8.3	NA	4 1 1 1 1
ALLIANCE NORTH AMER. GOVT. INC. B	C–	IB	B	1038.4	–20	3.00 **	2.07 †	7.0	9.2	15.7	11.7	12.3	1 1 1 3 1
AMERICAN CENTURY BOND INV. (c)	C–	CI	C–	115.5	–19	No load	0.80	–2.1	4.3	6.9	6.2	NA	1 2 2 2 2
AMERICAN CENTURY GNMA INV. (d)	B+	GI	A	1297.9	–6	No load	0.59	1.0	5.3	7.3	6.4	NA	3 1 1 2 1
AMERICAN CENT. INTRM. TREAS. INV. (e)	C-	GI	C	352.3	–21	No load	0.51	–2.0	5.0	6.5	5.1	NA	4 3 3 1 2
AMERICAN CENTURY INTL. BOND INV. (f)	F	IB	D	111.7	–29	No load	0.84	–10.4	–0.2	5.7	4.0	NA	1 1 3 1 4
AMERICAN CENTURY S-T GOVT. INV. (g)	B+	GS	B	772.9	–6	No load	0.59	1.9	4.6	5.7	5.4	NA	4 2 2 2 1

*Includes redemption fee. **Includes deferred sales charge. †[illegible] in effect. ‡Not currently accepting new investments or deposits. NA: Not available. [illegible]
(a) Formerly Accessor Mortgage Securities Portfolio. (b) Formerly Chicago Trust Bond. (c) Formerly American Cent. Benham [illegible]
(e) Formerly American Cent. Benham Interm. Treas. Inv. (f) Formerly American Cent. Benham Int. Bond. (g) Formerly American Cent. [illegible]
[illegible]

MUTUAL FUND SCOREBOARD

Bond Fu

FUND	RATING (COMPARES RISK-ADJUSTED PERFORMANCE OF EACH FUND AGAINST ALL FUNDS)	CATEGORY	RATING (RATING COMPARES FUND WITHIN CATEGORY)	SIZE ASSETS $MIL.	% CHG. 1998-99	FEES SALES CHARGE (%)	EXPENSE RATIO (%)	PERFORMANCE TOTAL RETURN (%) 1 YR.	3 YR.	5 YR.	PORTFOLIO YIELD (%)	MATURITY (YEARS)	HIS RE AI
AMERICAN CENT. TARGET 2000 INV. (h)	B	GS	C	196.2	–11	No load	0.59	2.5	5.6	7.6	6.0	NA	1 4
AMERICAN CENT. TARGET 2005 INV. (i)	D	GL	B	453.9	–14	No load	0.59	–6.4	5.7	8.9	5.7	NA	1 4
AMERICAN CENT. TARGET 2010 INV. (j)	F	GL	D	219.2	–11	No load	0.59	–12.4	5.4	9.6	6.0	NA	1 4
AMERICAN CENT. TARGET 2015 INV. (k)	F	GL	D	200.3	12	No load	0.59	–14.9	6.2	11.4	6.3	NA	1 4
AMERICAN CENT. TARGET 2020 INV. (l)	F	GL	F	270.8	–36	No load	0.59	–20.8	6.0	12.4	5.7	NA	1 4
AMERICAN CENT. TARGET 2025 INV. (m)		GL		696.5	130	No load	0.59	–20.9	7.9	NA	4.5	NA	
AMERICAN HIGH-INCOME	B	HY	B	2843.9	11	4.75	0.81 †	7.3	7.0	10.9	9.3	7.1	1 1
AMSOUTH BOND PREMIER		CI		370.6	9	No load	0.73	–2.5	NA	NA	5.9	8.3	
ARMADA INTERMEDIATE BOND I	B	CI	B	297.2	–5	No load	0.61 †	–0.0	4.9	6.6	5.8	NA	3 3
ASSET MGMT. ADJUSTABLE RATE	A	UB	B+	799.2	–12	No load	0.49 †	5.2	5.6	6.4	5.9	2.2	4 1
ASSET MGMT. SHORT U.S. GOVT. SECS.	B+	GS	B	112.7	–7	No load	0.50 †	2.9	5.3	6.1	5.9	1.9	4 3
ATLAS U.S. GOVT. & MORTGAGE A	B+	GI	A	203.1	–3	No load	1.02 †	0.4	4.9	6.8	6.2	NA	3 2
AXP BOND A (n)	C	CI	B	2517.1	–9	5.00	0.83 †	–0.3	5.1	8.2	7.1	15.0	1 1
AXP EXTRA INCOME A (o)	C	HY	C–	2609.6	–4	5.00	0.91 †	7.0	4.7	9.8	10.2	7.6	1 1
AXP FEDERAL INCOME A (p)	C	GS	C–	1584.7	–2	5.00	0.88 †	1.2	5.3	6.7	5.6	18.2	3 2
AXP GLOBAL BOND A (q)	F	IB	C–	575.6	–22	5.00	1.16 †	–4.9	2.0	6.4	4.5	8.6	1 1
AXP SELECTIVE A (r)	C	CI	C	1085.9	–12	5.00	0.89 †	–1.1	5.0	7.6	6.1	15.1	1 3
BABSON BOND L	C	CI	B	107.7	–16	No load	0.97	–1.4	5.0	6.7	5.9	8.4	3 3
BERNSTEIN GOVT. SHORT DURATION	B+	GS	B+	125.6	–10	No load	0.70	2.9	4.7	5.6	4.5	1.6	4 2
BERNSTEIN INTERMEDIATE DURATION	B	CI	B	2505.2	–4	No load	0.60	0.5	4.8	7.0	6.0	9.0	2 3
BERNSTEIN SHORT DURATION PLUS	A	CS	B+	531.0	–12	No load	0.64	3.6	5.0	5.9	5.4	1.7	4 1
BOND FUND OF AMERICA	B	CI	B+	9512.5	0	4.75	0.66 †	2.3	5.5	8.2	7.2	8.9	1 1
BOSTON 1784 INCOME	C–	CI	C–	323.0	–13	No load	0.80 †	–2.7	4.2	6.5	6.0	NA	2 4
BOSTON 1784 SHORT-TERM INCOME	B+	CS	B	144.9	–22	No load	0.64 †	2.7	5.1	6.2	5.4	NA	4 2
BOSTON 1784 U.S. GOVT. MED.-TRM.	C	CI	C	259.6	–6	No load	0.80 †	–1.6	4.7	6.3	5.4	NA	3 4
CALVERT INCOME A	A	CI	A	132.8	198	3.75	1.07 †	7.2	9.7	10.2	5.8	10.0	1 3
CAPITAL WORLD BOND	D	IB	C	532.0	–15	4.75	1.08 †	–2.2	2.4	6.7	5.3	8.0	1 1
COLUMBIA FIXED-INCOME SECS.	C	CI	B	397.2	–6	No load	0.65	–1.6	5.0	7.3	6.2	6.4	1 3
CONCERT INVMT. GOVERNMENT I	D	GI	F	151.3	–29	6.75	0.88	–4.7	3.5	5.7	6.0	NA	2 4
DAVIS CONVERTIBLE SECS. A	A	CV	C	117.3	–12	4.75	1.16 †	13.0	12.6	18.5	3.0	NA	1 1
DELAWARE AMERICAN GOVT. BD. A	D	CI	F	105.48	-24	4.75	1.25 †	-2.6	4.1	5.7	6.6	8.0	4 4
DELAWARE DELCHESTER A	D	HY	D	694.5	–25	4.75	1.10 †	–3.5	2.5	6.6	11.2	7.0	3 1
DELAWARE LIMITED-TERM GOVT. A	C	CS	D	263.0	–17	2.75	1.01 †	1.1	4.5	5.2	6.3	7.9	4 3
DODGE & COX INCOME	B	CI	B+	1024.2	8	No load	0.47	–0.8	5.7	8.0	6.2	10.6	1 3
DREYFUS A BONDS PLUS	C	CI	C	462.2	–22	No load	0.95	1.8	4.6	7.1	6.3	14.2	1 4
DREYFUS BASIC GNMA	B+	CI	A	111.6	16	No load	0.65	2.8	5.6	7.6	6.6	20.8	2 1
DREYFUS CORE BOND	A	MU	A	294.7	3	No load	1.02	4.9	6.8	9.4	7.1	13.7	1 1
DREYFUS DISC. INTERM. BOND RET.		CI		261.8	46	No load	0.55	–1.8	5.2	NA	6.3	9.3	4 2
DREYFUS GNMA	B	CI	B+	952.0	–14	No load	0.94 †	1.3	4.7	6.7	6.5	20.2	3 2
DREYFUS HIGH-YIELD SECS.		HY		133.0	–6	1.00 *	1.06	19.0	5.3	NA	13.0	5.6	1 4
DREYFUS PREM. LTD.-TM. HIGH-INC. B		HY		561.3	2	4.00 **	1.45 †	1.5	NA	NA	10.0	NA	4
DREYFUS SHORT-INTERM. GOVT.	B	GS	C	421.9	–13	No load	0.70	1.9	4.8	6.2	6.0	NA	4 2
DREYFUS SHORT-TERM HIGH-YIELD		HY		111.8	–41	No load	1.06	–1.5	3.2	NA	11.3	NA	1 4
DREYFUS SHORT-TERM INCOME	A	CS	A	376.2	9	No load	0.87	6.2	6.2	7.2	6.7	NA	4 1
DREYFUS U.S. TREAS. INTERM. TERM	C–	GI	D	160.4	–11	No load	0.80	–3.5	3.8	5.9	6.5	7.9	3 3
DREYFUS U.S. TREAS. LONG-TERM	D	GL	C	121.3	–15	No load	0.80	–8.2	4.4	7.4	5.8	8.6	1 4
DREYFUS U.S. TREAS. SHORT-TERM	B	GS	C	164.1	–11	No load	0.79	1.4	4.5	5.8	5.8	2.7	4 2
EATON VANCE GOVT. OBLIGATIONS A	C	GS	F	195.3	–22	4.75	1.24 †	0.6	4.4	6.3	7.8	NA	3 2
EATON VANCE HIGH-INCOME B	B+	HY	B+	748.0	16	5.00 **	1.75 †	11.0	9.2	11.0	9.4	8.5	4 1
EATON VANCE INC. OF BOSTON A (s)	A	HY	B+	343.8	39	4.75	1.04 †	12.2	10.3	12.0	9.8	8.2	3 1
EATON VANCE STRATEGIC INCOME B	B	MU	B	157.7	8	5.00 **	1.96 †	5.4	5.3	9.6	8.5	NA	3 1
EV CLASSIC SENIOR FLOATING-RATE		UB		4465.8	30	2.00 ***	1.44 †	5.8	6.5	NA	6.6	NA	1 4
EVERGREEN DIVERSIFIED BOND A		CL		362.4	–21	4.75	1.23 †	–2.9	NA	NA	7.1	11.6	
EVERGREEN HIGH INCOME A (t)		HY		130.3	3	4.75	0.60 †	3.4	NA	NA	11.0	6.8	
EVERGREEN HIGH-YIELD BOND A		HY		311.9	–6	4.75	1.21 †	7.4	NA	NA	9.2	7.8	
EVERGREEN STRATEGIC INCOME A	C–	MU	C–	145.2	–12	4.75	1.02 †	2.3	4.8	7.2	8.8	12.8	4 1
EXCELSIOR INTERM. MANAGED INCOME	C	CI	C	147.3	22	No load	0.61	–2.1	4.9	7.0	5.2	11.8	1 4
EXCELSIOR MANAGED INCOME	C–	CL	C	205.6	–6	No load	0.90	–3.0	5.0	7.3	4.9	13.6	1 4
FEDERATED ADJ. RATE U.S. GOVT. F	B+	GS	B+	116.0	–19	1.00 **	1.02 †	4.1	4.5	5.6	4.9	NA	4 1
FEDERATED BOND F	C	CI	C	375.6	–9	2.00 **	1.08	–2.3	4.6	7.7	7.6	13.6	1 1
FEDERATED FUND FOR U.S. GOVT. A	C	GI	B	959.5	–11	4.50	0.96	0.4	5.0	6.7	6.4	6.8	3 2
FEDERATED GOVT. INCOME SECS. F	C	GI	C	1032.5	–18	2.00 **	0.98	–1.9	5.0	6.7	6.2	NA	3 2
FEDERATED HIGH-INCOME BOND B	C	HY	C	1247.5	10	5.50 **	1.94 †	1.7	5.0	9.1	8.7	11.6	1 1
FEDERATED HIGH-YIELD	B	HY	C	899.8	–18	No load	0.88	1.3	5.0	9.3	9.2	7.3	1 1
FEDERATED INTERMEDIATE INC. INSTL.	C	CI	B	308.4	51	No load	0.55	–1.4	4.9	7.5	6.4	9.9	1 3
FEDERATED INTERNATIONAL. INCOME A	F	IB	D	115.4	–17	4.50	1.33 †	–11.7	–1.4	4.6	5.0	7.5	2 1
FEDERATED LIMITED TERM A	B	CS	C	139.0	30	1.00	1.10 †	1.9	4.5	6.0	6.3	2.0	4 1
FEDERATED STRATEGIC INCOME B		MU		733.5	4	5.50 **	1.88 †	2.8	4.0	NA	8.1	9.4	1 3
FEDERATED U.S. GOVT. BOND	D	GL	C	126.3	–7	No load	0.85	–8.8	4.3	7.3	5.1	19.8	1 1
FEDERATED U.S. GOVT.:1-3 INSTL.	B+	GS	B+	485.0	–19	No load	0.54	2.6	5.0	5.8	4.6	1.7	4 2

(h) Formerly American Cent.-Benham Target 2000 I. (i) Formerly Amer. Cent.-Benham Target 2005 . (j) Formerly Amer. Cent.- Benham Target 2010. (k) Formerly Amer. Cent.- Benham Target 2015. (l) Formerly Amer. Cent.- Benham Target 2020. (m) Formerly Amer. Cent.-Benham Target 2025 . (n) Formerly IDS A. (o) Formerly IDS Extra Income A. (p) Formerly IDS Federal A. (q) Formerly IDS Global A. (r) Formerly IDS Selective A. (s) Formerly Eaton Vance of Boston.

DATA: MORNINGSTAR, INC., CHICAGO, IL

UTUAL FUND SCOREBOARD

Bond Funds

D	HATING (COMPARES RISK-ADJUSTED PERFORMANCE OF EACH FUND AGAINST ALL FUNDS)	CATEGORY (RATING COMPARES FUND WITHIN CATEGORY)	RATING	SIZE ASSETS $MIL	% CHG 1998-99	FEES SALES CHARGE (%)	EXPENSE RATIO (%)	PERFORMANCE % RETURN 1 YR	3 YR	5 YR	PORTFOLIO YIELD (%)	MATURITY (YEARS)	HISTORY RETURN VOL. ALL FUNDS
ERATED U.S. GOVT.:2-5 INSTL.	C	GS	C–	641.0	–11	No load	0.55	–0.5	4.8	6.3	4.9	3.8	4 3 1 1 1
ERATED ULTRASHORT BOND		UB		212.2	170	No load	NA †	4.1	NA	NA	5.8	1.6	1 1
W U.S. SHORT-TERM	A	UB	C–	647.7	–23	No load	0.25	4.3	5.0	5.2	5.3	NA	4 1 2 1 1
W WORLDWIDE-HEDGED	A	IB	A	179.5	9	No load	0.45	–0.2	7.8	8.9	5.5	NA	4 1 1 1 2
ELITY ADV. GOVT. INVESTMENT T	C–	GI	C–	203.2	0	3.50	1.00 †	–2.4	4.8	6.7	6.0	9.0	2 4 2 1 3
ELITY ADV. HIGH-YIELD T	C	HY	C	2431.9	1	3.50	1.07 †	8.4	7.5	10.9	7.9	7.4	1 1 1 4 1
ELITY ADV. INTERM. BOND T	C	CS	F	316.3	8	2.75	0.98 †	0.4	4.7	5.9	5.5	5.9	4 5 2 1 2
ELITY ADV. SHORT FIXED-INCOME T	B+	CS	B	284.3	–12	1.50	0.89 †	3.2	5.1	5.9	5.7	2.4	4 2 2 1 1
ELITY ADV. STRATEGIC INCOME T	B	MU	B	189.4	1	3.50	1.17 †	6.2	5.9	10.4	6.8	NA	1 1 2 1 1
ELITY CAPITAL & INCOME	B+	HY	B	2779.9	27	1.50 *	0.81	13.3	10.8	12.1	8.4	6.2	2 1 1 4 1
ELITY CONVERTIBLE SECURITIES	A	CV	C	1221.9	18	No load	0.77	44.1	24.2	21.4	2.3	NA	1 1 1 1 1
ELITY GINNIE MAE	B+	GI	A	1805.0	65	No load	0.64	1.4	5.5	7.5	6.5	8.1	2 1 2 2 1
ELITY GOVERNMENT INCOME	C	GI	C	1610.7	2	No load	0.67	–2.3	5.0	6.9	6.0	9.2	2 4 2 1 3
ELITY HIGH-INCOME	A	HY	B+	3257.9	14	1.00 *	0.80	8.9	9.3	12.0	9.8	7.8	1 1 1 4 1
ELITY INTERMEDIATE BOND	B	CS	C–	3211.6	–7	No load	0.65	1.0	5.2	6.4	6.2	5.5	4 5 3 1 1
ELITY INTERMEDIATE GOVT.	B	GS	C	846.0	11	No load	0.53	0.7	5.2	6.7	6.5	5.3	4 2 3 1 1
ELITY INVESTMENT GRADE BOND	C	CI	C	2056.9	–6	No load	0.70	–1.0	5.2	6.7	6.2	9.2	3 2 2 3 2
ELITY MORTGAGE SECURITIES INIT.	B+	CS	B	390.8	–14	No load ‡	0.71	2.2	5.7	7.8	6.8	7.8	2 1 2 2 1
ELITY NEW MARKETS INCOME	F	EB	B	210.0	1	1.00 *	1.13	39.1	7.6	13.7	11.1	NA	4 1 3 4 1
ELITY SHORT-TERM BOND	B+	CS	B	1327.3	58	No load	0.65	3.3	5.0	5.8	5.8	2.4	4 2 4 2 1
ELITY SPARTAN GOVT. INCOME	C	GI	B	496.7	–23	No load	0.51	–2.0	5.3	7.2	6.4	9.2	2 4 2 1 2
ELITY SPARTAN INVESTMENT GRADE	B	CI	B	1570.9	25	No load	0.38	–0.7	5.7	7.6	6.3	9.5	1 3 2 1 2
ELITY TARGET TIMELINE 2001		CI		146.2	863	0.50 *	0.35	2.3	6.1	NA	6.6	2.0	3 1 1
ELITY U.S. BOND INDEX	B	CI	B+	1507.0	23	No load	0.31	–1.0	5.7	7.6	6.5	8.8	2 3 1 1 2
ST AMERICAN FIXED-INCOME A	C–	CI	D	126.2	–26	4.25	0.95 †	–3.0	4.6	6.7	5.7	NA	2 3 3 1 3
ST INVESTORS FUND FOR INCOME A	B	HY	B	388.4	-5	6.25	1.27 †	2.5	6.0	9.9	8.9	NA	1 1 4 1 1
ST INVESTORS GOVERNMENT A	C	GI	C	134.3	-19	6.25	1.28 †	–0.0	4.9	6.5	5.3	NA	3 3 3 2 2
ST INVESTORS HIGH-YIELD A	C	HY	C	171.7	-12	6.25	1.36 †	1.6	5.6	9.4	8.6	NA	2 1 2 2 1
STAR BOND IMMDEX INSTL.	C	CI	B	429.9	–11	No load	0.42	–1.4	5.6	7.8	6.4	10.5	1 3 3 1 2
STAR STELLAR STRATEGIC INC. B (u)	F	MU	F	152.9	–24	5.00 **	1.26 †	–5.8	–0.1	3.6	7.8	13.9	4 1 2 4 4
STAR STELLAR U.S. GOVT. INC. A (v)	D	CI	F	162.2	8	3.50	0.91 †	–3.3	4.4	6.0	5.6	10.4	3 4 2 1 3
RTIS U.S. GOVERNMENT SECS. E	C–	GI	C	209.0	–25	4.50 ‡	0.79	–2.0	5.0	6.8	5.6	7.6	3 3 2 1 2
A NEW INCOME	B+	CI	A	515.3	–11	4.50	0.59	3.4	5.2	7.3	6.8	8.0	3 1 3 4 1
ANKLIN ADJUSTABLE U.S. GOVT. SECS.	B+	GS	B+	276.1	–2	2.25	0.76 †	4.4	5.1	6.1	4.9	NA	4 1 4 4 1
ANKLIN AGE HIGH INCOME A (w)	C	HY	C–	2899.2	–9	4.25	0.72 †	0.5	4.6	9.2	10.5	8.1	1 1 1 4 2
ANKLIN CONVERTIBLE SECURITIES A (x)	C–	CV	D	130.4	–23	5.75	0.98 †	21.2	10.7	14.4	4.3	NA	1 1 1 4 1
ANKLIN FLOATING RATE		UB		1590.8	269	1.00 **	1.39	6.2	NA	NA	6.2	NA	2 1
ANKLIN SHORT-INTRM. GOVT. A (y)	B	GS	C	176.7	–17	2.25	0.78 †	1.5	4.7	5.8	5.3	3.3	4 2 4 2 1
ANKLIN U.S. GOVERNMENT SECS. A (z)	B	GI	B+	7702.4	–13	4.25	0.65 †	0.8	5.6	7.5	6.7	23.5	2 3 2 2 1
EMONT BOND	B	CI	B+	174.7	–19	No load	0.60	–1.2	6.0	8.7	6.1	8.8	1 1 1 1 2
BOND		CI		106.9	104	No load	NA †	–0.3	NA	NA	6.6	15.5	2
LAXY II U.S. TREASURY INDEX RET.	C	GL	A	165.9	–13	No load	0.41	–2.5	5.4	7.1	6.9	9.1	2 4 2 1 3
GOVERNMENT SECURITIES B	C–	GI	C–	232.3	–38	5.00 **	1.60 †	–3.1	4.4	5.7	6.5	NA	4 4 3 1 3
LDMAN SACHS GLOBAL A	B+	IB	A	268.4	16	4.50	1.31 †	–1.6	5.9	8.9	4.3	NA	2 1 1 1 2
LDMAN SACHS HIGH YIELD A		HY		504.9	9	4.50	1.09 †	3.5	NA	NA	9.5	NA	4 1
VERNOR INTERMEDIATE INCOME (aa)		CI		277.4	–6	4.50	0.57	–2.6	4.3	NA	6.3	NA	3 1 3
EAT PLAINS INTERMEDIATE BOND		CI		127.1	–6	3.00	0.75 †	–2.4	NA	NA	5.5	6.2	1 3
ARDIAN INVESTMENT QUALITY BOND A	C–	CI	C–	139.6	–2	4.50	0.75 †	–1.1	5.0	6.8	5.6	8.4	2 4 3 1 2
NCOCK BOND A	C	CI	B	1193.9	–11	4.50	1.07 †	–1.4	5.1	7.6	6.7	12.3	1 2 1 1 2
NCOCK GOVERNMENT INCOME A	C–	GI	C–	539.8	–14	4.50	1.13 †	–2.5	5.1	7.0	6.4	9.8	1 4 2 1 3
NCOCK HIGH-YIELD BOND B	D	HY	D	787.7	4	5.00 **	1.73 †	10.1	4.3	8.4	10.3	8.1	3 1 1 4 1
NCOCK INTERMEDIATE GOVT. A (bb)	C	GI	C	153.5	–11	3.00	1.09 †	–1.1	5.3	5.9	6.2	6.2	4 5 2 1 1
NCOCK STRATEGIC INCOME B	B+	MU	B+	617.7	8	5.00 **	1.59 †	2.6	6.3	9.5	7.2	9.0	2 1 1 1 1
RBOR BOND	B	CI	B+	618.4	25	No load	0.65	–0.3	6.1	8.4	5.3	7.3	3 1 1 1 2
RBOR SHORT DURATION	A	CS	B+	235.2	41	No load	0.36	3.8	5.5	6.0	5.5	4.6	5 1 2 2 1
MESTEAD SHORT-TERM BOND	A	CS	B+	170.9	19	No load	0.75	3.2	5.4	6.4	5.5	NA	3 4 4 2 1
TCHKIS & WILEY LOW DURATION	A	CS	A	369.6	–5	No load	0.58	3.2	5.5	7.1	5.8	2.6	2 1 1 1 1
TCHKIS & WILEY TOTAL RETURN	B+	CI	A	110.2	27	No load	0.65	–1.7	5.8	8.4	6.2	5.8	1 1 1 1 2
TERMEDIATE BOND FUND AMERICA	C	CS	D	1507.4	–5	4.75	0.76 †	1.0	4.9	6.5	5.8	4.4	4 1 1 1 1
VESCO HIGH-YIELD	B+	HY	B+	749.0	–10	2.00 *	0.99 †	9.4	8.6	11.5	9.1	7.2	2 1 1 4 1
VESCO SELECT INCOME	B	CI	B+	549.4	4	No load	1.06 †	–1.3	5.7	8.4	6.9	10.1	1 1 1 1 2
S GOVERNMENT INCOME A	C–	GI	C	331.0	0	2.00	0.80 †	–2.5	4.9	6.7	5.5	7.0	2 3 3 1 3
TOTAL RETURN U.S. TREASURY	D	GL	C	142.0	–53	4.45	0.85 †	–5.7	5.0	7.1	7.0	NA	1 4 1 1 4
NUS FLEXIBLE INCOME	A	MU	B+	1203.8	3	No load	0.82	0.5	6.8	9.6	6.9	8.3	1 1 1 1 1
NUS HIGH-YIELD		HY		275.2	–7	No load	0.96	5.5	7.2	NA	8.7	6.7	1 1 4 1 1
NUS SHORT-TERM BOND	B+	CS	B	136.1	3	No load	0.65	2.9	5.4	6.1	5.7	2.9	4 1 2 1 1
MORGAN BOND	C	CI	B	223.4	7	No load	0.66	–0.8	5.2	7.2	5.9	16.7	2 1 1 1 2
MPER HIGH-YIELD A	C	HY	C	3137.0	–10	4.50	0.89	2.4	5.0	9.0	10.8	6.9	3 1 1 1 1
MPER INCOME & CAP. PRES. A	C–	CI	D	365.2	–36	4.50	1.01	–2.9	4.4	7.1	6.0	8.8	1 1 1 1 3
MPER SHORT-TERM U.S. GOVT. A (cc)	B	GS	C–	146.2	154	2.75	1.24	2.1	3.7	4.8	4.5	2.5	4 1 3 4 1

[illegible] Formerly Mentor High Income A (aa) Formerly [illegible] Strategic Income B (bb) Formerly [illegible] Government Income A (cc) Formerly [illegible] Adjustable Rate U.S. Govt. A

DATA: MORNINGSTAR [illegible]

MUTUAL FUND SCOREBOARD

Bond Fu

FUND	RATING (COMPARES RISK-ADJUSTED PERFORMANCE OF EACH FUND AGAINST ALL FUNDS)	CATEGORY	RATING (RATING COMPARES FUND WITHIN CATEGORY)	SIZE ASSETS $MIL.	SIZE % CHG. 1998-99	FEES SALES CHARGE (%)	FEES EXPENSE RATIO (%)	PERFORMANCE TOTAL RETURN (%) 1 YR.	3 YR.	5 YR.	PORTFOLIO YIELD (%)	MATURITY (YEARS)	HIST RES ALL
KEMPER STRATEGIC INCOME A (dd)	C–	MU	D	483.0	–16	4.50	1.04	–0.8	3.7	7.7	8.6	10.6	
KEMPER U.S. GOVERNMENT SECS. A	C	GI	B	2764.5	–14	4.50	0.80	0.3	5.4	7.3	6.9	9.3	
KEMPER U.S. MORTGAGE A	C	GI	B	1614.6	–10	4.50	0.97	0.2	5.3	7.2	6.5	7.7	
LEGG MASON HIGH-YIELD PRIM.	C	HY	C	382.4	–11	No load	1.30†	9.2	7.5	11.0	7.0	4.4	
LEGG MASON INVESTMENT GR. PRIM.	C	CI	B	185.2	12	No load	1.00†	–1.2	5.3	7.9	5.9	12.2	
LEGG MASON U.S. GOVT. INTRM. PRIM.	C	CS	D	309.0	–12	No load	1.00†	–0.7	4.2	6.2	5.2	8.5	
LEXINGTON GNMA INCOME	B+	GI	A	376.7	38	No load	1.01	0.6	6.0	7.9	6.2	NA	
LIBERTY-COLONIAL FEDERAL SECS. A (ee)	D	GI	F	661.8	–18	4.75	1.14†	–4.2	4.7	6.9	7.0	12.9	
LIBERTY-COLONIAL HIGH-YIELD SECS. B (ff)	B	HY	B	643.9	12	5.00**	1.96†	5.4	6.5	9.4	8.6	8.2	
LIBERTY-COLONIAL INTERM. GOVT. A (gg)	C–	GI	C–	519.4	–18	4.75	1.12†	–2.1	4.7	6.3	6.1	NA	
LIBERTY-COLONIAL STRATEGIC INC. B (hh)	B	MU	C	925.7	1	5.00**	1.90†	0.5	4.2	8.1	7.9	10.0	
LOOMIS SAYLES BOND INSTL.	B	CL	B+	1536.9	3	No load	0.75	4.5	7.2	12.4	8.3	17.4	
LORD ABBETT BOND-DEBENTURE A	B+	HY	B	2328.5	0	4.75	0.88†	3.9	7.1	9.9	8.3	9.9	
LORD ABBETT U.S. GOVT. SECS. A	D	GI	D	1358.7	–20	4.75	0.96†	–1.7	5.2	6.5	6.4	8.2	
MAINSTAY CONVERTIBLE B	A	CV	B	658.3	0	5.00**	2.15†	32.9	13.9	15.2	2.6	NA	
MAINSTAY GOVERNMENT B	D	GI	D	483.5	–18	5.00**	1.87†	–3.6	4.0	5.7	5.3	13.4	
MAINSTAY HIGH-YIELD CORP. BOND B	A	HY	A	3294.4	0	5.00**	1.75†	9.5	7.4	11.4	10.7	7.6	
MARSHALL GOVERNMENT INCOME Y	B	CI	B	320.7	11	No load	0.86	0.5	5.1	6.9	6.0	6.7	
MARSHALL INTERMEDIATE BOND Y	B	CS	D	599.2	1	No load	0.71	1.4	5.0	6.5	6.1	3.9	
MARSHALL SHORT-TERM INCOME Y	B+	CS	B+	140.8	8	No load	0.50	4.5	5.3	5.9	5.7	2.4	
MAS DOMESTIC FIXED-INCOME INSTL.	C	CI	B	177.3	46	No load	0.50	–1.6	5.0	7.4	6.0	12.4	
MAS FIXED-INCOME INSTL.	B+	CI	A	4307.4	–7	No load	0.47	–0.6	5.2	8.3	6.9	11.2	
MAS HIGH-YIELD INSTL.	A	HY	A	1014.2	23	No load	0.48	7.8	8.9	13.0	9.9	8.0	
MAS LIMITED DURATION INSTL.	B+	CS	B+	154.6	–33	No load	0.41	3.8	5.2	6.2	6.0	5.5	
MAS SPECIAL PURPOSE F/I INSTL.	B+	CI	A	444.9	–9	No load	0.48	–0.2	5.3	8.5	6.4	11.6	
MCM INTERMEDIATE FIXED-INCOME	B	CI	B	161.5	19	No load	0.50	–0.3	5.1	6.8	5.7	NA	
MERRILL LYNCH CORP. HIGH-YIELD B		HY		531.2	0	4.00**	NA†	2.8	NA	NA	8.1	7.4	
MERRILL LYNCH CORP. INTERM.-TRM. B	C	CI	C	155.7	–17	1.00**	1.18†	–0.8	4.5	6.6	5.8	6.5	
MERRILL LYNCH CORP. INVMT. GRADE	C–	CI	D	137.4	9	4.00	0.82†	–2.8	4.3	6.7	6.4	13.9	
MERRILL LYNCH CORP. INVMT. GRADE B	C–	CI	D	606.8	–20	4.00**	1.34†	–3.3	3.7	6.1	5.8	13.9	
MERRILL LYNCH FEDERAL SECS. D	B	GI	B+	788.3	–8	4.00	0.93†	0.7	5.1	6.9	5.8	NA	
MERRILL LYNCH SR. FLOATING RATE	A	UB	C	2933.4	–13	3.00*	1.35	4.7	5.9	6.1	7.0	NA	
MERRILL LYNCH WORLD INCOME B	F	MU	F	191.5	–32	4.00**	1.59†	11.3	–3.8	2.4	7.9	12.8	
METROPOLITAN WEST LOW DURATION		CS		326.0	55	No load	0.58†	6.0	NA	NA	7.0	4.5	
METROPOLITAN WEST TOTAL RETURN		CI		180.9	117	No load	0.65†	1.6	NA	NA	7.5	12.0	
MFS BOND A	C–	CL	C	802.3	–6	4.75	0.96†	–2.0	4.2	7.4	7.0	14.6	
MFS GOVERNMENT LTD. MATURITY A	B	GS	C	197.9	188	2.50	0.84†	2.2	4.9	5.6	5.7	7.3	
MFS GOVERNMENT MORTGAGE A	C	GI	C	570.4	–9	4.75	0.97†	0.0	4.8	6.7	6.0	24.4	
MFS GOVERNMENT SECURITIES A	C–	GI	C–	342.9	6	4.75	0.92†	–2.2	5.0	6.9	6.0	16.1	
MFS HIGH-INCOME A	B	HY	C	782.1	5	4.75	0.99†	7.0	6.8	10.0	9.6	8.2	
MFS LIMITED MATURITY A	B	CS	C	122.3	5	2.50	0.84†	2.9	4.5	6.0	5.8	7.9	
MFS STRATEGIC INCOME B	C	MU	C	145.9	3	4.00**	1.44†	6.2	4.8	8.5	8.7	12.9	
MONTGOMERY SHORT DUR. GOVT. R	A	GS	A	165.4	23	No load	0.62	2.6	5.6	6.7	5.6	2.9	
MORGAN GRENFELL EMG. DEBT	F	EB	C–	321.8	–15	No load	1.05	28.4	–1.7	8.7	3.9	6.9	
MORGAN GRENFELL FIXED-INCOME	B	CI	B+	1201.8	–6	No load	0.55	–0.6	5.5	7.7	6.3	8.3	
M.S.D.& T. LIMITED MATURITY BOND	B	CS	C	162.1	2	No load	0.50	1.9	5.4	6.7	5.6	3.0	
M.S.D.& T. TOTAL RETURN BOND		CI		119.3	11	No load	0.45	–0.1	NA	NA	6.2	8.0	
MSDW CONVERTIBLE B	B	CV	C–	247.8	–6	5.00**	1.81†	27.4	12.2	14.8	4.3	NA	
MSDW DIVERSIFIED INCOME B	C	MU	C–	834.7	–19	5.00**	1.38†	–2.8	1.9	5.2	8.2	6.8	
MSDW FEDERAL SECS. B	D	GI	D	535.6	–15	5.00**	1.52†	–4.6	4.3	6.3	6.5	5.5	
MSDW HIGH-YIELD SECS. B		HY		1784.1	–5	5.00**	1.24†	1.8	NA	NA	13.2	6.9	
MSDW INTERMEDIATE INCOME B	C–	CI	C–	112.1	–23	5.00**	1.63†	–1.9	3.7	5.5	5.3	5.3	
MSDW NORTH AMERICA GOVT. INC. (ii)	B	IB	B+	119.7	–18	No load	1.69†	2.4	5.6	7.3	4.8	NA	
MSDW PRIME INCOME TRUST	A	UB	A	2608.9	–63	3.00**	1.29	6.9	7.1	7.4	7.2	NA	
MSDW SHORT-TERM BOND	A	CS	B+	147.0	–30	No load	0.37	2.7	5.4	6.5	5.4	1.9	
MSDW SHORT-TERM U.S. TREAS.	B	GS	C	280.4	–24	No load	0.80†	1.4	4.8	5.6	5.2	2.8	
MSDW U.S. GOVERNMENT SECS. B	C	GI	B	4259.9	–15	5.00**	1.27†	–0.7	5.0	6.9	6.4	NA	
NATIONS CAPITAL INCOME INV. A (jj)	A	CV	B	326.7	–11	5.75	1.16†	26.8	18.1	19.6	2.4	4.8	
NATIONWIDE BOND D	C–	CI	D	119.9	–13	4.50	0.72	–2.8	4.8	7.7	6.2	12.4	
NEUBERGER BERMAN LTD. MAT.	B	CS	C	221.6	–22	No load	0.70	1.7	4.4	5.6	6.3	3.4	
NEW ENGLAND BOND INCOME A	C	CI	C	214.3	–3	4.50	1.01†	–0.3	6.1	8.6	6.8	9.6	
NEW ENGLAND LTD.-TM. U.S. GOVT. A	C–	GS	F	149.9	–23	3.00	1.31†	–1.2	4.1	5.5	5.4	6.1	
NEW ENGLAND STRATEGIC INCOME B		MU		127.8	–5	5.00**	1.94†	11.3	5.6	NA	7.9	17.1	
NICHOLAS INCOME	C	HY	C–	202.8	–15	No load	0.48	–0.1	4.3	8.2	10.8	7.0	
NORTH AMER. SR. FLOATING RATE C		UB		172.6	1111	1.00**	0.00†	7.0	NA	NA	6.9	NA	
NORTHEAST INVESTORS	B+	HY	B	1977.3	–15	No load	0.61	3.5	5.6	10.6	10.9	7.6	
NORTHERN FIXED-INCOME	C	CI	C	617.4	146	No load	0.90	–2.9	4.7	6.9	5.6	11.9	
NORTHERN HIGH YIELD F I		HY		127.3	608	No load	0.90	4.8	NA	NA	7.7	8.9	
NORTHERN INCOME EQUITY	B+	CV	C	228.4	92	No load	1.00	10.0	13.2	15.7	2.3	NA	
NORTHERN U.S. GOVERNMENT	C	GS	C–	363.1	39	No load	0.90	0.3	5.0	6.1	4.8	4.6	

(dd) Formerly Kemper Diversified Income A. (ee) Formerly Colonial Federal Secs A. (ff) Formerly Colonial High-Yield Secs B (gg) Formerly Colonial Interm. U.S. Govt A. (hh) Formerly Colonial Strategic Income B. (ii) Formerly TCW/DW North American Govt Inc.. (jj) Formerly Pacific Horizon Capital Income A.

DATA: MORNINGSTAR, INC., CHICAGO, IL

UTUAL FUND SCOREBOARD

Bond Funds

	RATING (COMPARES RISK-ADJUSTED PERFORMANCE OF EACH FUND AGAINST ALL FUNDS)	CATEGORY (RATING COMPARES FUND WITHIN CATEGORY)	RATING	SIZE ASSETS $MIL	% CHG 1998-99	FEES SALES CHARGE (%)	EXPENSE RATIO (%)	PERFORMANCE TOTAL RETURN (%) 1 YR	3 YR	5 YR	PORTFOLIO YIELD (%)	MATURITY (YEARS)	HISTORY RETURN (%) ALL FUNDS
GROUP BOND A (kk)	B	CI	B+	161.9	-28	4.50	0.86 †	-1.1	5.4	8.7	6.4	7.1	1 1 1 1 2
GROUP HIGH YIELD BOND I		HY		183.5	127	No load	0.89	3.3	NA	NA	9.2	NA	1
GROUP INTERM. BOND A (ll)	B	CS	D	139.7	59	4.50	0.84 †	4.4	5.2	8.0	5.9	5.4	1 1 2 1 1
ENHEIMER BOND A	C	CI	C	220.8	-11	4.75	1.27 †	-1.7	4.6	7.0	7.1	14.1	2 1 1 1 2
ENHEIMER CHAMPION INCOME A	C	HY	C	696.6	15	4.75	1.06 †	6.5	6.2	9.3	9.4	6.3	2 1 1 1 1
ENHEIMER CONVERTIBLE SECS. B		CV		431.5	0	5.00 **	1.69 †	21.5	14.0	NA	2.8	NA	1 1 1 1 1
ENHEIMER HIGH-YIELD A	C	HY	C-	1161.6	-2	4.75	0.99 †	4.1	5.3	8.9	10.0	6.6	3 1 1 1 1
ENHEIMER INTL. BOND B		IB		122.3	-2	5.00 **	2.00 †	10.2	2.1	NA	11.5	8.5	1 1 1 1 1
ENHEIMER LTD.-TERM GOVT. A	B+	GS	B	718.9	7	3.50	0.82 †	2.2	5.6	6.4	6.2	2.5	4 1 1 1 1
ENHEIMER STRATEGIC INCOME A	C	MU	C	3567.8	-8	4.75	0.92 †	4.0	4.6	8.3	9.0	6.2	3 1 1 1 1
ENHEIMER U.S. GOVERNMENT A	C	GI	B	550.5	-9	4.75	1.03 †	-0.7	5.2	6.9	6.2	4.8	5 1 1 1 1
EWEBBER GLOBAL INCOME A	C	IB	B	325.8	-17	4.00	1.24 †	-4.0	3.4	6.0	5.8	7.1	4 1 1 1 3
EWEBBER HIGH-INCOME A	D	HY	F	239.0	2	4.00	0.91 †	8.4	4.7	8.4	10.8	7.9	4 1 1 1 1
EWEBBER INVMT. GRADE INC. A	C-	CL	C	199.3	-7	4.00	0.93 †	-1.7	4.9	7.5	6.8	15.9	1 1 1 1 1
EWEBBER U.S. GOVT. INC. A	D	GI	D	223.2	-19	4.00	1.03 †	-2.9	4.6	6.2	5.9	NA	2 1 1 1 1
DEN & RYGEL GLOBAL FIX.-INC. R	B+	IB	A	504.4	-4	No load	0.49	-0.5	6.6	8.6	6.0	8.8	1 1 1 1 1
DEN & RYGEL INVMT. QUAL. R	C	CI	C	153.2	-37	No load	0.44	-2.3	4.8	7.0	6.4	6.9	1 1 1 1 3
DEN & RYGEL TOTAL RETURN R		CI		217.2	21	No load	0.44	-2.5	4.9	NA	6.0	6.5	1 1 1
ENIX-DUFF & PHELPS CORE BD. A (mm)	D	CI	F	138.7	-22	4.75	1.00 †	-3.0	4.1	6.2	6.9	11.1	1 1 1 1 1
ENIX-GOODWIN HIGH-YIELD A (nn)	C-	HY	C-	423.6	-11	4.75	1.12 †	11.7	5.8	10.3	9.7	7.9	2 1 1 1 1
ENIX-GOODWIN MULTI-SECTOR F/I A (oo)	D	MU	F	122.4	-21	4.75	1.08 †	8.2	3.2	8.4	8.8	6.5	1 1 1 1 1
RIM CONVERTIBLE C (pp)	A	CV	B+	132.7	49	1.00 **	2.18 †	49.2	29.7	25.8	0.8	NA	1 1 1 1 1
RIM HIGH TOTAL RETURN B	F	HY	F	333.1	-24	5.00 **‡	2.02 †	-14.1	-4.6	3.7	13.0	NA	1 1 1 1 1
RIM HIGH TOTAL RETURN II B		HY		146.8	-19	5.00 **	2.17 †	-14.5	NA	NA	11.8	NA	1 1
RIM HIGH YIELD B		HY		243.3	13	5.00 **	1.75 †	-1.9	2.5	NA	10.1	8.0	1 1 1 1 2
RIM HIGH YIELD III B		HY		117.5	-16	5.00 **	1.97 †	-5.2	2.0	NA	8.6	NA	1 1 1 1
CO FOREIGN BOND INSTL.	A	IB	A	418.6	-12	No load	0.50	1.6	7.0	12.0	6.0	7.2	1 1 1 1 1
CO GLOBAL BOND INSTL.	D	IB	C	252.7	-1	No load	0.55	-4.3	2.2	7.7	6.0	6.3	1 1 1 1 1
CO HIGH-YIELD INSTL.	A	HY	A	2221.9	28	No load	0.50	2.8	7.4	10.8	8.8	7.0	1 1 1 1 1
CO LOW DURATION INSTL.	A	CS	A	3744.3	19	No load	0.43	3.0	6.1	7.3	6.3	4.0	4 1 1 1 1
CO LOW DURATION II INSTL.	B+	CS	B	441.8	3	No load	0.50	2.6	5.6	6.7	5.9	3.6	4 1 1 1 1
CO SHORT-TERM INSTL.	A	UB	B+	599.5	59	No load	0.45	5.2	5.8	6.7	5.6	0.9	1 1 1 1 1
CO TOTAL RETURN INSTL.	B	CI	A	23379.9	16	No load	0.43	-0.3	6.4	8.6	6.2	8.0	1 1 1 1 2
CO TOTAL RETURN II INSTL.	C	CI	B	1139.0	33	No load	0.50	-1.1	6.1	8.1	5.8	9.6	1 1 1 1 2
CO TOTAL RETURN III INSTL.	B	CI	B+	592.7	38	No load	0.50	-1.0	6.4	8.5	6.2	7.9	1 1 1 1 2
EER AMERICA INCOME A	C-	GI	C-	110.9	-13	4.50	1.00 †	-2.5	4.4	6.2	5.9	NA	3 1 1 1 3
EER BOND A	D	CI	F	119.7	-9	4.50	1.17 †	-3.2	4.4	6.5	6.6	NA	2 1 1 1 3
FERRED FIXED-INCOME	C	CI	B	181.7	12	No load	0.65	-0.7	4.9	6.9	6.2	15.5	2 1 1 1 2
DENTIAL DIVERSIFIED BOND B		MU		170.7	-9	5.00 **	1.50 †	-1.5	3.4	NA	5.6	9.4	1 1 1 2
DENTIAL GLOBAL TOTAL RET. A (qq)	B	IB	B+	257.9	61	4.00	1.33 †	-4.0	3.0	9.2	6.3	NA	1 1 1 1 3
DENTIAL GOVERNMENT INCOME A	C-	CI	D	838.9	0	4.00	0.84 †	-3.3	4.8	6.9	6.4	9.4	1 1 1 1 3
DENTIAL GOVT. SHORT-INTERM. A	C	GS	C-	122.8	-18	No load	0.96 †	0.1	4.3	5.9	4.6	NA	1 1 1 1 1
DENTIAL HIGH-YIELD B	C-	HY	C-	1869.4	-21	5.00 **	1.27 †	2.9	4.6	8.5	9.8	7.1	3 1 1 1 1
NAM AMERICAN GOVT. INCOME A	C-	GI	C-	1500.1	3	4.75	1.01 †	-3.1	4.7	6.8	5.9	9.2	1 1 1 1 3
NAM CONVERT. INCOME-GROWTH A	B	CV	C	1044.2	-4	5.75	0.97 †	17.5	13.8	16.5	4.3	NA	1 1 1 1 1
NAM DIVERSIFIED INCOME B	D	MU	D	1634.1	-22	5.00 **	1.72 †	1.3	1.9	6.2	8.1	8.4	2 1 1 1 1
NAM GLOBAL GOVT. INCOME M		IB		189.3	-11	3.25	1.51 †	-4.5	-0.7	NA	6.4	8.2	1 1 1 1
NAM HIGH YIELD A	D	HY	D	2406.7	-9	4.75 ‡	0.93 †	6.5	3.9	8.4	11.0	7.8	2 1 1 1 1
NAM HIGH YIELD ADV. A	D	HY	F	929.7	-8	4.75	0.92 †	5.9	2.8	7.4	11.0	7.8	1 1 1 1 1
NAM HIGH YIELD II B		HY		835.8	35	5.00 **	1.81 †	3.7	NA	NA	10.2	8.2	1 1
NAM INCOME M	D	CI	F	1569.3	15	3.25	1.27 †	-2.2	3.0	6.2	6.5	11.8	1 1 1 1 1
NAM INTERM. U.S. GOVT. INC. A	C	GS	D	241.0	-1	3.25	1.06 †	0.2	5.0	6.7	5.2	5.5	1 1 1 1 2
NAM STRATEGIC INCOME B		MU		126.3	7	5.00 **	2.01 †	1.6	2.2	NA	8.6	8.5	3 1 1
NAM U.S. GOVERNMENT INCOME A	C	GI	B	1935.2	-8	4.75	0.87 †	0.1	5.1	7.0	6.4	8.4	3 1 1 1 2
IONS FIXED-INCOME TRUST		CI		215.4	12	No load	NA	-0.3	NA	NA	5.4	4.1	2
UBLIC FIXED-INCOME		CI		106.27	-7	No load	0.78	-0.1	4.6	NA	6.6	12.0	1 1 1 1
OMON BROS. HIGH-YIELD BOND B		HY		312.1	-4	5.00 **	1.99 †	6.3	3.2	NA	10.3	NA	1 1 1 1
WAB SHORT-TERM BOND MKT. INDEX	B+	CS	C	222.8	29	No load	0.35	1.5	5.1	6.0	5.3	2.8	1 1 1 1 1
WAB TOTAL BOND MARKET INDEX	C	CI	C	532.7	56	No load	0.35	-1.0	5.7	7.9	5.8	8.3	1 1 1 1 3
DDER EMERGING MKTS. INCOME	F	EB	C-	191.9	-8	No load	1.56	22.7	-1.1	9.2	8.5	NA	1 1 1 1 1
DDER GNMA	B	GI	B+	329.7	-16	No load	0.94	0.1	5.0	7.1	6.1	10.0	2 1 1 1 1
DDER HIGH-YIELD BOND		HY		162.7	-21	1.00 *	0.44	3.6	7.5	NA	10.1	6.4	1 1 1
DDER INCOME	C	CI	C	713.2	-12	No load	0.95	-1.5	4.3	6.8	6.6	9.2	1 1 1 1 1
DDER INTERNATIONAL BOND	F	IB	F	107.7	-26	No load	1.50	-5.4	0.7	2.8	4.5	9.0	4 1 1 1 1
DDER SHORT-TERM BOND	B	CS	D	772.4	-22	No load	0.86	1.1	3.8	5.2	5.2	2.6	4 1 1 1 1
DAILY CORP. DAILY INCOME A	A	CS	A	115.4	33	No load	0.36	4.3	5.4	6.0	5.2	1.3	1 1 1 1 1
DAILY INTERM.-DUR. GOVT. A	B	GI	B+	131.8	7	No load	0.49	0.0	5.5	7.0	5.6	5.3	1 1 1 1 1
DAILY SHORT-DUR. GOVT. A	B+	GS	A	114.3	9	No load	0.45	2.7	5.6	6.4	5.1	3.7	1 1 1 1 1
INSTL. CORE FIXED-INCOME A	C	CI	B	2454.6	53	No load	0.60	-1.8	5.3	7.8	5.7	16.7	1 1 1 1 2
INTERNATIONAL FIXED-INCOME A	F	IB	D	910.5	54	No load	1.00	-6.7	2.2	6.4	6.0	6.8	1 1 1 1 1

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MUTUAL FUND SCOREBOARD

Bond Fu

FUND	RATING (COMPARES RISK-ADJUSTED PERFORMANCE OF EACH FUND AGAINST ALL FUNDS)	CATEGORY	RATING (RATING COMPARES FUND WITHIN CATEGORY)	SIZE ASSETS $MIL.	SIZE % CHG. 1998-99	FEES SALES CHARGE (%)	FEES EXPENSE RATIO (%)	PERFORMANCE TOTAL RETURN (%) 1 YR.	3 YR.	5 YR.	PORTFOLIO YIELD (%)	MATURITY (YEARS)	HIS RE AL
SEI INTL. EMERGING MKTS. DEBT A		EB		352.6	85	No load	1.35	28.9	NA	NA	17.0	9.9	
SELIGMAN HIGH-YIELD BOND B		HY		1096.8	1	5.00 **	1.85 †	–0.7	4.2	NA	10.4	7.8	5
SIT U.S. GOVERNMENT SECS.	B+	GS	B+	150.6	6	No load	0.80	1.3	5.3	6.5	5.4	14.2	4 1
SMITH BARNEY DIVERS. STRAT. INC. B	B+	MU	B	1525.1	–32	4.50 **	1.49 †	–0.7	3.8	7.2	6.5	NA	3 1
SMITH BARNEY GOVERNMENT SECS. A	F	GL	C–	288.4	–17	4.50	1.00 †	–5.0	4.6	5.7	5.5	12.1	4 4
SMITH BARNEY HIGH-INCOME B	C	HY	C	746.3	–10	4.50 **	1.55 †	2.3	4.7	8.7	9.1	8.7	2 1
SMITH BARNEY INVESTMENT GRADE A	F	CL	F	220.3	–13	4.50	1.04 †	–9.1	4.9	9.2	6.6	22.0	1 4
SMITH BARNEY MANAGED GOVTS. A	C–	GI	C–	299.1	–17	4.50	1.03 †	–0.7	4.8	6.2	5.9	9.5	4 3
SMITH BARNEY U.S. GOVT. SECS. A	C	GI	C	203.0	–18	4.50	0.81 †	–0.2	5.1	7.1	5.6	9.5	2 2
SOUTHTRUST BOND	D	CI	F	120.8	–6	3.50	0.84	–4.1	4.7	6.4	5.9	9.4	3 4
SSGA BOND MARKET		CI		284.9	56	No load	0.48 †	–1.3	5.2	NA	5.7	9.3	2
SSGA YIELD PLUS	A	UB	B	508.5	–35	No load	0.41 †	5.6	5.3	5.6	5.4	NA	4 1 4
STATE ST. RESEARCH GOVT. INC. A	C	CI	C	464.9	–10	4.50	1.09 †	–1.9	5.3	7.2	6.3	8.0	2 3 2
STATE ST. RESEARCH HIGH-INCOME A	C–	HY	C–	655.8	1	4.50	1.06 †	2.3	5.2	8.9	10.1	7.8	4 1 1
STEIN ROE INCOME	C	CI	B	261.0	–28	No load	0.84	0.5	4.6	7.5	6.6	10.4	1 1 1
STEIN ROE INTERMEDIATE BOND	B	CI	B+	417.0	–8	No load	0.72	0.6	5.4	7.4	6.3	8.2	2 2 2
STRONG ADVANTAGE INV. (rr)	A	UB	B	2442.2	–7	No load	0.70	5.3	5.5	6.1	5.9	0.9	4 1 4
STRONG CORPORATE BOND INV. (ss)	B+	CL	A	860.6	2	No load	0.90	–0.2	6.2	9.6	7.0	11.7	1 1 1
STRONG GOVERNMENT SECS. INV. (tt)	B	GI	B+	1315.4	–1	No load	0.80	–1.1	5.3	7.5	5.6	7.7	1 4 2
STRONG HIGH-YIELD BOND		HY		607.5	10	No load	0.80	7.8	8.8	NA	10.1	7.3	1 1
STRONG SHORT-TERM BOND INV. (uu)	A	CS	A	1262.5	–4	No load	0.80	4.3	5.4	6.9	6.5	2.4	4 1 4
STRONG SHORT-TERM HIGH-YIELD BOND		HY		266.6	97	No load	0.90	5.3	NA	NA	8.0	2.5	
SUNAMERICA U.S. GOVT. SECS. A	C–	GI	C	159.6	35	4.75	1.63 †	–1.4	4.2	6.2	4.8	13.5	3 3 3
TEMPLETON GLOBAL BOND A (vv)	C–	IB	B	156.9	–14	4.25	1.22 †	–4.8	0.7	6.1	7.0	9.4	1 1 4
THORNBURG LTD.-TERM U.S.A	B	GS	C	106.16	-15	1.50	0.97 †	0.2	4.5	6.1	5.5	4.2	4 2 4
TIAA-CREF BOND PLUS		CI		205.2	32	No load	0.30	–1.0	NA	NA	5.9	NA	
T. ROWE PRICE HIGH-YIELD	B+	HY	B+	1660.4	–3	1.00 *	0.82	4.2	7.6	10.0	9.6	9.3	3 1 1
T. ROWE PRICE NEW INCOME	C–	CI	C–	1848.0	–12	No load	0.72	–1.6	4.2	6.5	6.3	10.1	1 4 2
T. ROWE PRICE EMERG. MKTS. BOND	F	EB	B	166.4	14	No load	1.25	23.0	3.4	13.7	10.7	14.2	1 1 1
T. ROWE PRICE GNMA	B	GI	B+	1114.5	–3	No load	0.71	0.2	5.4	7.3	6.7	9.3	2 3 2
T. ROWE PRICE INTERNATIONAL BOND	F	IB	C–	802.2	–13	No load	0.88	–7.9	0.9	5.8	4.1	7.1	1 1 4
T. ROWE PRICE SHORT-TERM BOND	B+	CS	C	308.6	–11	No load	0.73	2.3	4.9	5.7	5.6	2.4	4 2 4
T. ROWE PRICE SHORT-TERM U.S.	B+	CS	C	131.3	–4	No load	0.70	1.7	5.1	6.1	5.5	2.5	4 2 4
T. ROWE PRICE SPECTRUM INCOME	B+	MU	B+	2589.0	1	No load	0.00	0.3	6.2	9.0	6.3	10.1	1 1 1
T. ROWE PRICE U.S. TREAS. INTRM.	C	GI	C	253.1	–4	No load	0.62	–3.2	4.9	6.5	5.3	6.2	3 4 3
T. ROWE PRICE U.S. TREAS. LONG-TERM	F	GL	C–	336.9	9	No load	0.66	–8.8	5.7	8.2	6.0	17.4	1 4 1
UNITED BOND A	C	CI	C	512.1	–7	5.75	0.81 †	–1.1	5.2	7.7	5.9	9.1	1 3 1
UNITED GOVERNMENT SECS. A	C	GI	C	127.1	–8	4.25	0.96 †	–0.7	5.2	7.2	5.9	6.8	1 4 2
UNITED HIGH-INCOME A	B+	HY	B	927.4	–9	5.75	0.94 †	2.9	6.9	10.0	9.0	6.3	2 1 1
UNITED HIGH-INCOME II A	B	HY	C	365.5	–11	5.75	0.96 †	2.5	6.6	9.6	9.9	6.4	2 1 1
U.S. GOVERNMENT SECURITIES	C–	GI	C	1274.0	–6	4.75	0.79 †	–1.6	4.8	6.4	6.0	6.6	3 4 3 1
USAA GNMA	C–	GI	C–	462.3	2	No load	0.31	–3.6	4.6	6.6	6.8	9.5	2 4 2 1
USAA INCOME	C	CL	B	1373.7	–22	No load	0.38	–3.9	5.1	7.9	6.7	12.1	1 3 1 1
USAA SHORT-TERM BOND	B+	CS	B+	250.9	23	No load	0.50	3.9	5.4	6.7	6.0	2.6	4 1 4
VALUE LINE AGGRESSIVE INCOME	B	HY	B	168.7	2	No load	0.81	9.2	5.7	11.1	10.2	NA	1 1 1
VALUE LINE U.S. GOVERNMENT	C	GI	B	160.6	–12	No load	0.66	–1.2	5.2	6.7	5.6	7.4	1 2 2 1
VAN KAMPEN CORPORATE BOND A	C–	CI	D	163.4	–15	4.75	1.08 †	–3.2	4.8	7.4	6.7	12.3	1 4 1 1
VAN KAMPEN GOVERNMENT SECS. A	D	GI	D	1565.0	–17	4.75	1.02 †	–2.9	4.7	6.4	6.7	6.6	2 4 2 1
VAN KAMPEN HARBOR A	A	CV	C	513.1	36	5.75	1.02 †	49.1	23.3	20.8	2.4	NA	1 1 1 1
VAN KAMPEN HIGH-INCOME CORP. A	C	HY	C	501.5	–6	4.75	1.03 †	4.2	5.4	9.3	11.3	7.5	2 1 1 4
VAN KAMPEN HIGH-YIELD A	C	HY	C	251.0	–7	4.75	1.17 †	6.5	5.3	9.0	9.9	8.6	2 1 1 4
VAN KAMPEN PRIME RATE INCOME	A	UB	B	7961	1	3.00 **	1.35	3.7	5.6	6.3	6.0	NA	4 1 4 2
VAN KAMPEN SR. FLOATING RATE		UB		1669.8	112	1.00 **	1.70	5.7	NA	NA	6.8	NA	
VAN KAMPEN U.S. GOVERNMENT A	C	GI	B	1812.1	–13	4.75	0.90 †	0.0	4.7	7.0	7.0	6.8	2 2 3 3
VANGUARD CONVERTIBLE SECS.	C	CV	D	197.0	11	No load	0.73	30.4	15.1	15.5	3.5	NA	2 1 1 4
VANGUARD GNMA	B+	GI	A	12548.5	14	No load	0.30	0.8	5.7	7.8	6.8	8.5	2 1 2 1
VANGUARD HIGH-YIELD CORP.	A	HY	B+	5699.2	6	1.00 *	0.29	2.5	6.6	9.6	8.5	7.4	1 1 1 3
VANGUARD INTERM.-TERM BOND INDEX	C	CI	C	1449.0	31	No load	0.20	–3.0	5.3	7.7	6.6	7.6	1 4 2 1
VANGUARD INTERM.-TERM CORP.	C	CI	C	1457.1	23	No load	0.27	–1.5	5.1	7.7	6.7	7.1	1 4 2 1
VANGUARD INTERM.-TERM U.S. TREAS.	C–	GI	C–	1704.5	–9	No load	0.27	–3.5	5.2	7.4	6.2	7.5	1 3 2 1
VANGUARD LONG-TERM BOND INDEX	D	CL	D	313.2	49	No load	0.20	–7.9	5.7	8.8	6.8	21.8	1 3 1 1
VANGUARD LONG-TERM CORP. BOND	D	CL	C–	3723.6	–10	No load	0.30	–6.2	5.2	8.3	6.9	18.5	1 4 1 1
VANGUARD LONG-TERM U.S. TREAS.	D	GL	C	1223.5	–14	No load	0.27	–8.7	5.6	8.6	6.3	20.2	1 4 1 1
VANGUARD PREFERRED STOCK	B	CL	A	282.4	–24	No load	0.36	–5.8	4.3	9.2	6.5	NA	1 1 1 2
VANGUARD SHORT-TERM BOND INDEX	B+	CS	B	1155.6	63	No load	0.20	2.1	5.6	6.8	5.5	2.8	4 2 4 1
VANGUARD SHORT-TERM CORP.	A	CS	B+	6798.9	25	No load	0.27	3.3	5.6	6.8	6.3	2.8	4 1 4 2
VANGUARD SHORT-TERM FEDERAL	B+	GS	B+	1521.4	–7	No load	0.27	2.1	5.2	6.5	5.7	3.4	4 1 4 1
VANGUARD SHORT-TERM TREAS.	B+	GS	B	1234.9	4	No load	0.27	1.9	5.2	6.4	5.3	3.1	4 1 4 1
VANGUARD TOTAL BOND MKT. INDEX	B	CI	B+	9477.2	22	No load	0.20	–0.8	5.7	7.6	6.5	9.1	2 3 2 1
VICTORY FUND FOR INCOME G (ww)	B	GI	B+	170.2	6	2.00	0.90 †	0.3	5.2	7.2	5.8	NA	3 3 2 1

(rr) Formerly Strong Advantage. (ss) Formerly Strong Corporate Bond. (tt) Formerly Strong Government Secs.. (uu) Formerly Strong Short-Term Bond. (vv) Formerly Templeton Global Bo
I. (ww) Formerly Gradison Government Income.

DATA: MORNINGSTAR, INC., CHICAGO, I

UTUAL FUND SCOREBOARD

Bond Funds

	RATING (COMPARES RISK-ADJUSTED PERFORMANCE OF EACH FUND AGAINST ALL FUNDS)	CATEGORY (RATING COMPARES FUND WITHIN CATEGORY)	RATING	SIZE ASSETS $MIL	% CHG 1998-99	FEES SALES CHARGE (%)	EXPENSE RATIO (%)	PERFORMANCE 1 YR	3 YR	5 YR	PORTFOLIO YIELD (%)	MATURITY (YEARS)	HISTORY % RANK VS. ALL FUNDS
TORY INTERMEDIATE INCOME	C–	CI	C–	210.1	–19	5.75	0.96	–0.7	4.5	6.1	5.5	4.8	3 3 2 1 2
TORY INVESTMENT QUALITY BOND	C–	CI	F	129.0	–23	5.75	1.06	–2.5	4.4	6.3	5.7	9.1	2 4 3 1 3
CHOVIA INTERM. FIXED-INCOME Y		CI		138.5	62	No load	0.74	–1.5	NA	NA	5.7	12.6	2
RBURG PINCUS FIXED-INC. COMM.	B+	CI	A	351.0	–15	No load	0.75	–0.0	5.0	7.2	6.0	7.6	3 1 1 1 1
RBURG PINCUS GLOBAL FIXED-INC.	B	IB	B+	126.0	–19	No load	0.95	0.4	3.6	7.3	6.7	10.9	3 1 2 1 2
SMARK BOND		HY		125.5	9	No load	NA†	–2.3	NA	NA	5.9	10.9	3
MINGTON INTERMEDIATE BOND I (xx)		CL		143.5	50	No load	NA	–3.2	NA	NA	5.1	NA	3
INCOME A	C	CL	B+	161.7	–23	4.50	1.07†	0.1	5.8	8.3	7.2	12.1	1 3 1 1 2
U.S. GOVERNMENT SECS. A	C	GI	C	208.4	–19	4.50	0.92†	0.1	5.7	7.6	5.9	7.4	1 3 1 1 2
CORE BOND	B	CI	B	136.9	–2	No load	0.50†	–0.1	5.4	6.6	6.1	8.2	1 1 1 1 1
X EXEMPT													
P INSURED T/F GENERAL BOND	C	ML	B	1519.7	–11	No load	0.67	–2.0	4.0	6.3	4.9	9.6	5 5 5 5 5
MUNICIPAL BOND A	B	MI	C	294.8	–10	4.75	0.82†	–2.3	3.3	5.3	5.5	13.4	4 2 3 3 3
TAX-FREE INTERMEDIATE	A	MS	C	354.0	63	1.00	0.46	0.3	4.3	5.4	4.8	6.0	4 2 3 1 1
IANCE MUNI. INCOME CALIF. A	B+	MC	A	689.5	21	4.25	0.71†	–3.3	4.6	8.2	5.4	23.0	1 1 1 2 3
IANCE MUNI. INCOME NATL. A	C	ML	B	404.6	10	4.25	0.66†	–5.9	3.2	7.0	5.7	23.0	1 2 1 3 4
IANCE MUNI. INCOME N.Y. A	B	MY	A	241.7	13	4.25	0.61†	–4.1	4.3	7.5	5.6	25.0	1 2 1 3 4
IANCE MUNI. INSURED NATL. A	D	ML	C–	168.8	–5	4.25	1.00†	–6.6	2.8	6.8	4.8	24.0	1 2 1 3 4
ERICAN CENT. CALIF. HI-YLD. MUNI. (yy)	A	MC	A	302.8	–7	No load	0.54	–3.3	4.5	7.4	5.5	17.7	1 1 1 2 3
ERICAN CENT. CALIF. INS. T/F (zz)	C–	MC	C	198.3	–10	No load	0.51	–4.4	3.5	6.5	5.2	18.9	1 3 2 2 4
ERICAN CENT. CALIF. INTERM. T/F (aaa)	B+	MF	B	439.5	–8	No load	0.51	–1.1	3.9	5.8	4.6	9.6	4 2 3 3 2
ERICAN CENT. CALIF. LONG T/F (bbb)	C	MC	C	299.8	–12	No load	0.51	–5.2	3.4	6.5	5.4	19.3	1 3 1 3 4
ERICAN CENTURY INTERM. T/F (ccc)	B+	MI	B	161.3	10	No load	0.51	–0.9	4.0	5.5	4.7	8.4	4 3 3 1 2
ERICAN HIGH-INCOME MUNI. BOND	A	MI	A	552.1	6	4.75	0.78†	–2.3	4.2	7.5	5.5	9.7	1 1 1 4 3
SOUTH MUNICIPAL BOND PREM.		MI		353.7	10	No load	0.64	–1.6	NA	NA	4.3	7.3	5 2
AS CALIF. MUNICIPAL BOND A	C–	MC	C	198.3	–6	No load	0.94†	–4.5	3.0	5.4	4.9	20.1	3 3 3 2 4
CALIF. TAX-EXEMPT A (ddd)	D	MF	D	226.7	–11	5.00	0.75†	–4.4	3.0	5.4	5.3	21.7	3 3 3 3 4
HIGH-YIELD TAX-EXEMPT A (eee)	B	MI	C	5110.5	–11	5.00	0.70†	–2.7	3.9	6.2	6.1	19.6	2 4 2 3 3
INSURED TAX-EXEMPT A (fff)	F	ML	D	407.8	–11	5.00	0.73†	–4.0	2.9	5.4	5.3	20.8	2 4 3 3 4
MINN. TAX-EXEMPT A (ggg)	C	SL	C	380.8	–4	5.00	0.75†	–3.8	3.4	5.6	5.7	22.0	3 3 3 3 3
TAX-EXEMPT BOND A (hhh)	D	ML	C–	877.3	–11	5.00	0.73†	–4.5	3.4	6.1	5.5	18.1	1 4 1 3 4
NSTEIN CALIF. MUNICIPAL	A	MF	B+	561.5	–2	No load	0.65	–0.1	3.8	5.7	4.1	6.5	4 3 4 1 3
NSTEIN DIVERSIFIED MUNICIPAL	A	MI	B+	1417.4	–1	No load	0.63	0.3	3.8	5.5	4.1	7.6	1 3 4 1 3
NSTEIN N.Y. MUNICIPAL	B+	MN	A	791.4	–5	No load	0.64	–0.2	3.8	5.5	4.1	6.9	4 3 4 3 2
NSTEIN SHORT DUR. DIV. MUNICIPAL	A	MS	B+	171.8	–1	No load	0.71	2.5	3.4	4.0	3.2	1.4	4 3 4 4 1
STON 1784 CONN. TAX-EX. INCOME	B+	SI	B+	164.2	–4	No load	0.80†	–2.8	4.0	6.0	4.6	8.5	3 3 3 2 3
STON 1784 MASS. TAX-EX. INCOME	B	SI	B	245.6	4	No load	0.80†	–2.1	4.1	5.8	4.6	8.5	4 3 2 1 1
STON 1784 TAX-EX. MED.-TM. INCOME	B	MI	C	334.2	2	No load	0.80†	–3.0	4.1	6.1	4.5	9.3	3 2 2 2 3
IFORNIA INVMT. TAX-FREE INCOME	C	MC	C	186.6	–19	No load	0.61	–3.6	3.9	6.9	4.7	11.2	1 3 2 2 3
VERT TAX-FREE. RES. LTD.-TERM A	A	MS	B+	523.8	–4	1.00	0.71	2.9	3.6	4.1	3.5	0.7	4 2 4 4 1
RCHILL TAX-FREE OF KY. A	B+	SI	B	206.3	–10	4.00	0.72†	–1.5	3.8	5.8	5.2	16.4	4 3 3 4 2
IFUNDS N.Y. TAX-FREE INCOME A (iii)	C–	MY	C	224.3	–51	4.50	0.80†	–3.7	4.1	6.5	4.4	12.0	3 3 1 2 5
UMBIA MUNICIPAL BOND	B	SI	C	409.9	–11	No load	0.58	–2.7	3.6	5.7	4.8	10.0	1 3 3 3 3
VIS TAX-FREE HIGH INCOME B	B+	MS	D	205.4	–20	4.00**	1.80†	–2.8	2.6	4.2	4.9	19.0	4 1 4 4 3
AWARE MINN. INSURED A (jjj)	B	SL	B+	252.1	–12	3.75	0.92†	–2.9	3.6	6.3	5.1	18.0	3 3 3 3 3
AWARE TAX-FREE ARIZ. INSURED. A	C	SL	B	148.79	-17	3.75	0.84†	-4.0	3.4	6.5	5.0	18.4	1 3 3 3 4
AWARE TAX-FREE COLO. A (kkk)	C	SL	B	309.7	–15	3.75	0.83†	–6.3	3.5	6.8	5.3	20.7	1 2 1 2 4
AWARE TAX-FREE MINN. A (lll)	C	SL	C	361.2	–14	3.75	0.89†	–4.8	3.4	6.1	5.3	19.9	2 3 1 2 4
AWARE TAX-FREE PENN. A	C–	SI	D	739.6	–16	3.75	0.95†	–4.8	2.5	5.0	5.4	22.3	3 3 3 4 4
AWARE TAX-FREE USA A	F	MI	F	448.3	–21	3.75	1.00†	–5.2	2.4	4.3	5.6	22.8	4 4 3 4 4
EYFUS BASIC MUNI. BOND	C	ML	B	218.4	4	No load	0.45	–5.7	3.8	6.9	5.3	20.4	1 3 4 1 4
EYFUS CALIF. INTERMEDIATE MUNI.	B	MF	C–	179.9	–11	No load	0.80	–1.7	3.8	5.7	4.4	9.4	4 3 3 1 2
EYFUS CALIF. TAX-EXEMPT BOND	C–	MC	C–	1087.2	–16	0.10*	0.72	–4.4	3.1	5.3	5.1	17.0	3 3 3 3 4
EYFUS FLA. INTERMEDIATE MUNI.	B	SI	C	286.4	–13	1.00*	0.81	–1.2	3.3	5.4	4.6	7.9	3 3 4 4 5
EYFUS INSURED MUNI. BOND	D	ML	D	157.7	–16	No load	0.85†	–4.7	3.0	5.3	5.1	22.1	5 5 5 5 4
EYFUS INTERMEDIATE MUNI.	B+	MI	B	1133.3	–14	No load	0.75	–1.5	3.8	5.8	5.0	8.7	3 3 2 2 2
EYFUS MUNI BOND	C–	ML	C	2605.6	–20	No load	0.73	–6.0	2.4	5.2	5.5	22.4	5 5 5 4 4
EYFUS N.J. INTERM. MUNI. BOND	B+	SI	B+	194.0	–11	1.00*	0.80	–0.7	3.9	5.7	4.4	6.1	3 3 4 3 2
EYFUS N.J. MUNI BOND	C	SL	B	525.3	–13	1.00*	0.90†	–4.2	3.3	5.6	5.2	17.2	3 3 3 3 4
EYFUS N.Y. TAX-EXEMPT BOND	C–	MY	C	1440.8	–13	1.00*	0.75	–3.8	3.9	5.9	5.1	16.9	3 4 3 3 3
EYFUS N.Y. TAX-EX. INTERM. BOND	B	MN	B	313.8	–16	1.00*	0.80†	–2.3	3.9	5.9	4.5	8.6	3 3 3 1 3
EYFUS PREMIER MUNI. BOND A	C–	ML	C–	379.4	–14	4.50	0.91	–5.8	2.6	5.7	5.4	18.5	2 2 1 1 4
EYFUS PREMIER ST. MUNI. CONN. A	C	SL	B	284.2	–10	4.50	0.89	–4.2	3.6	6.1	5.3	19.7	3 2 2 1 4
EYFUS PREMIER ST. MUNI. MD. A	C	SL	B	242.3	–8	4.50	0.90	–4.6	3.4	6.0	5.4	23.2	3 3 3 3 4
EYFUS PREMIER ST. MUNI. OHIO A	C	SL	C	211.7	–11	4.50	0.90	–3.4	3.2	5.7	5.3	16.1	3 1 1 1 3
EYFUS PREMIER ST. MUNI. PENN. A	C	SL	C	183.2	–4	4.50	0.92	–4.8	3.4	6.2	5.3	19.8	3 2 1 3 4
EYFUS SHORT-INTERM. MUNI. BOND	A	MS	A	280.1	–7	0.10*	0.73†	2.1	3.9	4.6	4.2	2.5	4 3 2 3 1
REE KY. TAX-FREE INCOME	A	SI	A	413.5	0	No load	0.61	–1.4	4.0	5.9	5.2	17.1	1 3 3 1 2
TON VANCE CALIF. MUNICIPALS B	D	MC	D	233.6	–21	5.00**	1.65†	–6.8	2.9	5.8	5.1	21.2	1 1 1 1 4

[illegible] Amer Cen.-Ben. CA Int.-Tr [illegible] Long T/F [illegible] Amer Cen.-Ben. Interm. T/F [illegible] Fmly. [illegible] A [illegible] Fmly. [illegible] A [illegible] Fmly. [illegible] A

MUTUAL FUND SCOREBOARD

Bond Funds

FUND	RATING (COMPARES RISK-ADJUSTED PERFORMANCE OF EACH FUND AGAINST ALL FUNDS)	CATEGORY	RATING (RATING COMPARES FUND WITHIN CATEGORY)	SIZE ASSETS $MIL.	% CHG. 1998-99	FEES SALES CHARGE (%)	EXPENSE RATIO (%)	PERFORMANCE TOTAL RETURN (%) 1 YR.	3 YR.	5 YR.	PORTFOLIO YIELD (%)	MATURITY (YEARS)	HISTORY RESULTS ALL FUNDS
EATON VANCE FLA. MUNICIPALS B	F	SL	F	299.3	–29	5.00 **	1.52 †	–6.4	2.1	5.0	4.5	23.3	1 4 3 3
EATON VANCE HIGH-YIELD MUNICIPALS B		ML		214.2	–8	5.00 **	1.71 †	–7.1	3.0	NA	5.6	24.4	1 1 1 [illegible]
EATON VANCE N.J. MUNICIPALS B	D	SL	D	249.1	–22	5.00 **	1.57 †	–6.7	2.3	5.0	4.8	27.5	3 4 2 [illegible]
EATON VANCE MASS. MUNICIPALS B	D	SL	D	169.5	–23	5.00 **	1.58 †	–6.9	2.4	5.2	4.7	21.2	2 4 1 [illegible]
EATON VANCE NATL. MUNICIPALS B	D	ML	C–	1607.6	–22	5.00 **	1.53 †	–8.5	2.7	6.1	5.5	23.6	1 3 1 [illegible]
EATON VANCE N.Y. MUNICIPALS B	D	MY	D	354.5	–23	5.00 **	1.58 †	–6.5	2.6	5.5	4.7	19.3	2 4 2 [illegible]
EATON VANCE OHIO MUNICIPALS B	C–	SL	C–	189.3	–22	5.00 **	1.61 †	–6.2	2.2	5.3	5.0	21.4	2 4 3 [illegible]
EATON VANCE PENN. MUNICIPALS B	D	SL	C–	255.1	–25	5.00 **	1.56 †	–5.1	1.8	5.0	5.0	20.5	3 3 1 [illegible]
EVERGREEN FLA. HIGH-INC. MUNI. A	A	SL	A	253.4	–10	4.75	0.86 †	–4.1	4.1	7.1	5.6	20.4	1 1 1 [illegible]
EVERGREEN MUNICIPAL BOND A (mmm)		ML		943.9	–18	4.75	0.85 †	–6.0	NA	NA	5.0	14.1	[illegible]
EVERGREEN PENN. MUNICIPAL Y (nnn)		SL		846.0	376	No load	NA	–3.0	NA	NA	5.2	10.0	3 [illegible]
EXCELSIOR INTERM.-TERM TAX-EXEMPT	B+	MI	C	295.5	–7	No load	0.58	–2.1	3.8	6.0	3.7	8.0	3 2 3 2
FEDERATED INTERMEDIATE MUNI.	B	MI	C–	208.3	–12	No load	0.57	–2.9	3.0	4.8	4.5	7.7	4 2 4 3
FEDERATED MUNICIPAL OPPORT. F	C	ML	C	246.9	–20	2.00 **	1.07 †	–6.4	2.7	5.1	5.7	13.3	3 4 1 3
FEDERATED MUNICIPAL SECS. A	F	ML	F	487.3	–15	4.50	0.87	–6.8	2.4	4.1	4.8	11.9	4 4 2 3
FEDERATED PENN. MUNI. INCOME A	C	SL	B	211.2	–12	4.50	0.75 †	–5.2	3.1	6.5	5.2	13.8	2 1 2 3
FIDELITY ADV. MUNI. INCOME T	B	ML	B+	317.1	–16	3.50	0.87 †	–2.7	4.4	6.4	4.8	12.7	2 4 1 2
FIDELITY SPARTAN CALIF. MUNI. INC.	B+	MC	B+	1251.2	–5	No load	0.52	–2.8	4.4	7.3	4.8	13.7	1 1 1 2
FIDELITY SPARTAN CONN. MUNI. INC.	B+	SL	A	345.6	–7	0.50 *	0.54	–2.1	4.2	6.7	4.9	11.5	2 2 2 3
FIDELITY SPARTAN FLA. MUNI. INC.	B+	SL	A	418.9	–8	0.50 *	0.55	–2.7	4.0	6.8	4.8	12.1	1 2 2 2
FIDELITY SPARTAN INTERM. MUNI.	A	MI	A	1102.5	–4	No load	0.50	–1.1	4.3	6.3	5.0	8.3	3 2 3 3
FIDELITY SPARTAN MASS. MUNI. INC.	B+	SL	A	1321.5	–3	No load	0.51	–2.1	4.2	6.7	5.0	13.3	2 3 2 3
FIDELITY SPARTAN MICH. MUNI. INC.	B	SL	B+	444.1	–7	No load	0.55	–2.6	3.9	6.0	5.1	13.1	1 3 2 3
FIDELITY SPARTAN MINN. MUNI. INC.	B+	SL	A	294.4	–5	No load	0.55	–2.4	3.9	6.2	4.8	12.2	3 2 2 3
FIDELITY SPARTAN MUNICIPAL INC.	B+	ML	B+	4216.8	–9	No load	0.53	–2.5	4.1	6.6	5.0	12.6	3 1 2 2
FIDELITY SPARTAN N.J. MUNI. INC.	B+	SL	A	379.3	–3	0.50 *	0.54	–1.5	4.1	6.3	4.9	11.2	3 2 3 3
FIDELITY SPARTAN N.Y. MUNI. INC.	B	MY	B+	1089.7	–7	No load	0.53	–3.3	4.1	7.0	5.0	13.4	1 2 1 3
FIDELITY SPARTAN OH. MUNI. INC.	B	SL	B+	367.7	–6	No load	0.55	–2.8	3.8	6.3	4.9	12.9	3 2 2 3
FIDELITY SPARTAN PENN. MUNI. INC.	B+	SL	A	251.0	–6	0.50 *	0.55	–2.2	3.9	6.5	4.8	12.2	2 2 3 3
FIDELITY SPARTAN SHORT-INTRM. MUNI.	A	MS	B	751.8	18	No load	0.55	1.6	3.9	4.8	3.9	2.8	4 2 4 1
FIRST INVESTORS INS. TAX-EXEMPT A	F	ML	D	955.7	–15	6.25	1.11 †	–4.0	3.3	5.6	4.4	15.3	3 4 3 2
FIRST INVESTORS N.Y. INS. T/F A	F	MY	F	171.4	–8	6.25	1.12 †	–4.1	3.1	5.4	4.4	15.8	3 4 3 2
FIRSTAR STELLAR INS. T/F A (ooo)		ML		156.9	2	4.50	0.79	–1.9	4.0	NA	4.4	7.9	3 3 1
FRANKLIN ALA. TAX-FREE INCOME A (ppp)	B	SL	B+	216.2	–8	4.25	0.71 †	–3.7	2.8	5.6	5.6	21.6	3 1 2 4
FRANKLIN ARIZ. TAX-FREE INC. A (qqq)	C	SL	B	797.1	–6	4.25	0.63 †	–3.9	3.1	5.5	5.5	19.5	3 2 3 3
FRANKLIN CALIF. HIGH YLD. MUNI. A (rrr)	B	MC	B+	552.2	7	4.25	0.44 †	–6.8	3.8	7.2	5.9	24.5	1 1 1 1
FRANKLIN CALIF. INS. T-F INC. A (sss)	C	MC	B	1666.0	–7	4.25	0.60 †	–3.6	3.6	6.1	5.3	20.5	3 2 3 2
FRANKLIN CALIF. INTERM. TAX-FREE	A	MF	B+	186.8	0	2.25	0.60 †	–1.5	4.4	6.7	4.8	8.9	3 1 3 2
FRANKLIN CALIF. TAX-FREE INC. A (ttt)	B	MC	B+	13433.6	–13	4.25	0.57 †	–4.4	3.5	5.9	5.4	21.9	3 1 2 3
FRANKLIN COLO. TAX-FREE INC. A (uuu)	B	SL	B	277.1	–7	4.25	0.70 †	–4.5	3.2	6.0	5.4	21.5	3 1 2 3
FRANKLIN CONN. TAX-FREE INC. A (vvv)	C	SL	B	224.2	–4	4.25	0.72 †	–4.9	3.0	5.5	5.5	19.9	3 2 3 3
FRANKLIN FED. INTERM. TAX-FREE INC.	B+	MI	B	181.6	–6	2.25	0.75 †	–1.9	3.8	5.9	4.8	8.9	3 2 3 3
FRANKLIN FEDERAL TAX-FREE INC. A (www)	B+	ML	A	6749.2	–6	4.25	0.60 †	–2.8	3.9	6.2	5.8	19.8	3 1 2 2
FRANKLIN FLA. TAX-FREE INC. A (xxx)	B	SL	B+	1591.6	–10	4.25	0.61 †	–3.4	3.6	5.9	5.5	19.6	3 2 3 2
FRANKLIN GA. TAX-FREE INCOME A	B	SL	B+	153.23	-7	4.25	0.76 †	-3.9	3.1	5.5	5.4	19.6	3 2 3 3
FRANKLIN HIGH YIELD TAX-FREE INC. A (yyy)	A	ML	A	5434.0	–8	4.25	0.62 †	–3.2	3.9	6.7	6.2	19.6	3 1 1 4
FRANKLIN INS. TAX-FREE INCOME A (zzz)	B	MI	C–	1541.0	–11	4.25	0.62 †	–3.5	3.5	5.6	5.4	19.8	4 2 3 2
FRANKLIN LA. TAX-FREE INCOME A	B	SL	B+	152.64	-2	4.25	0.75 †	–3.9	3.3	5.8	5.6	20.1	3 2 3 3
FRANKLIN MD. TAX-FREE INCOME A (aaaa)	C	SL	B	234.3	–5	4.25	0.74 †	–4.1	3.3	6.1	5.2	21.0	3 2 3 3
FRANKLIN MASS. INS. T/F INCOME A (bbbb)	C	SL	B	323.0	–4	4.25	0.68 †	–3.8	3.4	5.5	5.3	21.0	3 2 2 3
FRANKLIN MICH INS. T/F INCOME A (cccc)	B	SL	B+	1122.6	–3	4.25	0.63 †	–2.3	4.0	6.0	5.2	16.4	4 3 2 3
FRANKLIN MINN. INS. T/F INCOME A (dddd)	C	SI	C–	473.8	–7	4.25	0.67 †	–3.8	3.1	5.1	5.3	19.7	4 3 3 3
FRANKLIN MO. TAX-FREE INCOME A (eeee)	C	SL	B	371.3	3	4.25	0.70 †	–4.5	3.3	6.0	5.4	20.6	3 1 3 3
FRANKLIN N.J. TAX-FREE INCOME A (ffff)	B	SL	B+	656.0	–3	4.25	0.65 †	–3.5	3.5	5.9	5.5	19.0	3 2 3 3
FRANKLIN N.Y. INS. T/F INCOME A (gggg)	B	MY	B+	243.0	–10	4.25	0.72 †	–3.4	3.6	6.6	5.2	19.8	1 2 2 3
FRANKLIN N.Y. TAX-FREE INCOME A (hhhh)	B+	MN	B	4497.5	–8	4.25	0.59 †	–2.3	4.5	6.2	5.7	18.2	4 2 2 3
FRANKLIN N.C. TAX-FREE INCOME A (iiii)	B	SL	B+	336.0	0	4.25	0.70 †	–4.3	3.4	6.0	5.4	18.7	3 2 2 4
FRANKLIN OHIO INS. T/F INCOME A (jjjj)	B	SL	B+	725.2	–6	4.25	0.65 †	–3.1	3.6	5.8	5.2	18.8	3 2 3 3
FRANKLIN ORE. TAX FREE INCOME A (kkkk)	B	SI	C	447.3	–6	4.25	0.67 †	–3.9	3.1	5.7	5.4	20.4	3 2 3 3
FRANKLIN PENN. TAX-FREE INCOME A (llll)	B	SL	B+	673.5	–11	4.25	0.65 †	–4.2	3.3	5.7	5.5	20.5	3 2 2 4
FRANKLIN P.R. TAX-FREE INCOME A (nnnn)	B+	SL	A	205.3	–5	4.25	0.74 †	–2.4	3.9	6.2	5.2	17.2	3 1 2 3
FRANKLIN VA. TAX-FREE INCOME A (oooo)	B	SL	B+	346.5	–8	4.25	0.68 †	–4.2	3.3	5.8	5.4	20.9	3 3 3 4
GENERAL CALIF. MUNICIPAL BOND	C–	MC	C–	235.9	–19	0.10 *	0.77 †	–5.9	2.6	5.9	5.3	21.8	2 2 2 4
GENERAL MUNICIPAL BOND	C–	ML	C	453.0	–25	0.10 *	0.86 †	–5.3	2.4	5.4	5.4	21.6	2 3 3 4
GENERAL N.Y. MUNICIPAL BOND	C–	MY	C	338.7	15	0.10 *	0.90 †	–4.7	3.6	6.0	5.1	18.8	2 3 1 4
HANCOCK CALIF. TAX-FREE INCOME A	B+	MC	B+	288.4	–6	4.50	0.77 †	–2.8	4.5	7.8	5.5	10.6	1 2 1 2
HANCOCK TAX-FREE BOND A	C	ML	B	532.4	–11	4.50	0.86 †	–3.5	3.8	7.0	5.6	13.8	1 3 1 3
HAWAIIAN TAX-FREE A	C	SL	B	579.0	–10	4.00	0.70 †	–2.6	3.5	5.8	5.1	15.5	3 3 3 3
INVESCO TAX-FREE BOND (pppp)	D	ML	C–	185.2	–11	No load	0.91 †	–3.4	3.2	5.4	4.4	11.2	3 4 2 3
J.P. MORGAN TAX-EXEMPT BOND	B+	MI	B	389.3	–14	No load	0.68	–0.7	4.0	5.7	4.4	6.4	4 3 3 2

(mmm) Formerly Evergreen T-F A. (nnn) Frmly. Evergreen PA T F Y. (ooo) Frmly. Stellar Ins. T-F A. (ppp) Frmly. Franklin AL T-F Inc.I. (qqq) Frmly. Franklin AZ T-F Inc. I. (rrr) Frmly. Franklin CA HY Muni. I. (sss) Frmly. Franklin CA Ins. T-F Inc. A. (ttt) Frmly. Franklin CA T/F Inc. I. (uuu) Frmly. Franklin CO T/F Inc. I. (vvv) Frmly. Franklin CN T/F Inc. I. (www) Frmly. Franklin Fed. T/F Inc. I. (xxx) Frmly. Franklin FL T/F Inc. I. (yyy) Frmly. Franklin HY T/F Inc. I. (zzz) Frmly. Franklin Ins. T/F Inc. I. (aaaa) Frmly. Franklin MD T/F Inc. I. (bbbb) Frmly Franklin MA Ins.T/F Inc. I. (cccc) Frmly Franklin MI Ins. T/F Inc. I. (dddd) Frmly Franklin MN Ins.T/F Inc. I. (eeee) Frmly Franklin MO T/F Inc. I.

DATA: MORNINGSTAR, INC., CHICAGO, IL.

UTUAL FUND SCOREBOARD

Bond Funds

UND	RATING	CATEGORY	RATING	SIZE		FEES		PERFORMANCE			PORTFOLIO		HISTORY
(COMPARES RISK ADJUSTED PERFORMANCE OF EACH FUND AGAINST ALL FUNDS)		(RATING COMPARES FUND WITHIN CATEGORY)		ASSETS $MIL	% CHG. 1998-99	SALES CHARGE (%)	EXPENSE RATIO (%)	1 YR	3 YR	5 YR	(%)	(YEARS)	
EMPER MUNICIPAL BOND A	C–	ML	C	2654.8	–13	4.50	0.69	–3.6	3.7	6.4	5.1	10.8	
EMPER STATE T/F INC. CALIF. A	D	MC	D	797.9	–16	4.50	0.78	–3.7	3.5	6.4	4.8	15.8	
EMPER STATE T/F INC. N.Y. A	D	MY	C–	216.6	–18	4.50	0.84	–4.2	3.4	6.0	4.8	17.0	
EGG MASON MD. T/F INC. PRIM.	C	SL	B	157.3	–4	2.75	0.70†	–3.8	3.1	5.5	4.8	15.7	
IBERTY-COLONIAL CALIF. T/E A (qqqq)	D	MC	D	208.5	–16	4.75	0.86†	–4.3	3.6	6.6	4.9	16.5	
IBERTY-COLONIAL MASS. TAX-EX. A	C–	SL	C–	153.1	-14	4.75	0.91†	-4.1	3.5	6.2	5.0	15.5	
IBERTY-COLONIAL T/E A (rrrr)	D	ML	C–	2035.9	–17	4.75	0.95†	–4.9	3.6	6.1	5.4	18.0	
IMITED TERM N.Y. MUNICIPAL A	A	MS	C	1024.8	5	3.50	0.80†	–0.9	4.3	5.5	4.8	12.6	
IMITED TERM TAX-EX. BOND AMERICA	B+	MI	B+	301.1	12	4.75	0.75†	–0.6	4.0	5.7	4.3	5.4	
ORD ABBETT CALIF. T/F INC. A (ssss)	C–	MC	C–	196.4	–19	3.25	0.87†	–6.4	2.7	5.6	5.2	20.8	
ORD ABBETT NATL. T/F INC. A (tttt)	C	ML	C	527.4	–12	3.25	0.88†	–5.7	3.4	6.3	5.3	21.5	
ORD ABBETT N.J. T/F INC. A (uuuu)	C	SL	C	159.4	–14	3.25	0.86†	–5.7	3.1	6.0	5.4	18.1	
ORD ABBETT N.Y. T/F INC. A (vvvv)	C	MY	C	242.1	–14	3.25	0.85†	–4.7	3.1	5.7	5.4	18.5	
AINSTAY TAX-FREE BOND B	F	ML	F	358.4	–22	5.00**	1.27†	–7.0	2.0	4.7	4.7	20.1	
ERRILL LYNCH CALIF. MUNI. BOND B	C–	MC	C–	248.2	–24	4.00**	1.16†	–5.4	2.6	5.6	5.0	20.1	
ERRILL LYNCH MUNI. INSURED B	F	ML	D	344.0	–29	4.00**	1.18†	–6.1	2.1	5.0	4.6	19.1	
ERRILL LYNCH MUNI. NATL. B	C–	ML	C	318.2	–24	4.00**	1.31†	–6.1	2.1	5.4	5.0	21.6	
ERRILL LYNCH N.Y. MUNI. BOND B	F	MY	F	168.5	–26	4.00**	1.18†	–7.8	1.9	4.7	4.5	22.3	
FS CALIF. MUNICIPAL BOND A	C–	MC	C	202.8	–9	4.75	0.60†	–3.3	4.2	6.5	5.2	13.8	
FS MASS. MUNICIPAL BOND A	C–	SL	C–	219.2	–9	4.75	1.00†	–3.7	3.2	5.6	5.2	14.5	
FS MUNICIPAL BOND A	F	ML	D	1330.6	–14	4.75	0.57	–3.5	3.3	5.6	5.3	15.2	
FS MUNICIPAL HIGH-INCOME A	C	ML	B	1092.3	–4	4.75	0.81	–3.2	3.6	5.9	6.3	18.1	
FS MUNICIPAL INCOME A	C	ML	B	212.6	5	4.75	1.23†	–2.9	3.8	5.9	5.7	17.3	
FS N.C. MUNICIPAL BOND A	C–	SL	C	322.5	–12	4.75	0.98†	–3.9	3.2	5.8	5.1	14.9	
FS VA. MUNICIPAL BOND A	D	SL	C–	325.4	–11	4.75	0.99†	–3.5	3.3	5.5	5.1	16.3	
IORGAN GRENFELL MUNICIPAL BOND	A	MI	A	581.9	–1	No load	0.54	–1.2	4.0	6.2	5.0	7.3	
I.S.D.& T. NTL.TAX-EXEMPT BOND		MI		175.0	–4	No load	0.45	–1.4	NA	NA	4.6	8.8	
ISDW CALIF. TAX-FREE INCOME B	C–	MC	C–	781.6	–12	5.00**	1.33†	–4.0	2.9	5.3	4.8	16.0	
ISDW TAX-EXEMPT SECS. B		ML		144.68	10	5.00**	1.09†	-3.3	NA	NA	4.7	16.0	
ATIONS CALIF. MUNI. BOND INV. A (xxxx)	C–	MC	C–	169.6	–23	4.75	0.90†	–3.7	3.6	6.1	4.8	13.2	
ATIONWIDE TAX-FREE INCOME D	C	ML	B	219.9	–16	4.50	0.96	–3.6	3.4	6.2	5.3	19.4	
EW ENGLAND MUNICIPAL INC. A	B	ML	B+	152.1	-12	4.50	0.92†	-2.8	3.6	6.4	5.4	17.6	
ORTHERN INTERMEDIATE TAX-EXEMPT	B	MS	D	682.2	107	No load	0.85	–0.9	3.3	5.0	4.0	6.6	
ORTHERN TAX-EXEMPT	C–	ML	C–	515.0	158	No load	0.85	–4.2	3.3	5.9	4.5	15.5	
UVEEN FLAGSHIP ALL-AMER. MUNI. A	C	ML	B	283.4	–1	4.20	0.80†	–5.3	3.6	6.4	5.5	22.5	
UVEEN FLAGSHIP CONN. MUNI. A	B	SL	B+	199.2	–11	4.20	0.86†	–3.8	3.5	6.1	5.3	20.4	
UVEEN FLAGSHIP FLA. MUNI. A	C	SL	C	275.4	–10	4.20	0.84†	–3.4	3.4	5.7	5.4	22.6	
UVEEN FLAGSHIP KY. MUNI. A	C	SL	B	412.6	–11	4.20	0.82†	–4.4	3.2	6.0	5.3	21.5	
UVEEN FLAGSHIP LTD.-TM. MUNI. A	B+	MS	C–	392.0	–13	2.50	0.77†	–0.2	3.8	5.2	4.6	7.9	
UVEEN FLAGSHIP MICH. MUNI. A	C–	SL	C–	218.8	–18	4.20	0.84†	–5.0	3.0	5.7	5.4	20.3	
UVEEN FLAGSHIP MO. MUNI. A	C	SL	C	205.0	–15	4.20	0.86†	–4.4	3.4	6.0	5.3	21.4	
UVEEN FLAGSHIP N.C. MUNI. A	D	SL	D	157.9	–15	4.20	0.74†	–5.7	2.7	5.2	5.2	22.3	
UVEEN FLAGSHIP OHIO MUNI. A	C–	SL	C	410.3	–14	4.20	0.85†	–4.3	3.1	5.5	5.3	21.5	
UVEEN FLAGSHIP TENN. MUNI. A	C–	SL	C–	252.9	–12	4.20	0.84†	–5.0	3.0	5.6	5.3	21.8	
NE GROUP MUNICIPAL INCOME A	B	MI	C	174.0	15	4.50	0.82†	–2.7	3.7	5.4	4.9	8.8	
PPENHEIMER CALIF. MUNICIPAL A	D	MC	C–	281.1	–10	4.75	0.92†	–6.6	2.8	6.4	5.4	19.7	
PPENHEIMER MUNICIPAL BOND A	C	ML	C	518.1	–13	4.75	0.87†	–5.1	3.3	6.5	5.5	18.2	
PPENHEIMER N.Y. MUNICIPAL A	C	MY	C	561.9	–6	4.75	0.87†	–4.5	3.3	6.2	5.4	19.8	
AINEWEBBER NATL. TAX-FREE INC. A	D	ML	C–	197.2	–14	4.00	0.95†	–4.1	3.5	5.6	5.1	19.3	
IONEER TAX-FREE INCOME A	C–	ML	C	367.1	–6	4.50	0.92†	–4.3	3.4	6.0	4.7	16.8	
RINCIPAL TAX-EXEMPT BOND A	B+	ML	B+	182.9	–10	4.75	0.83†	–3.2	3.6	7.0	5.1	17.2	
RUDENTIAL CALIF. MUNI. CALIF. INC. A	C	MC	B	169.0	–11	3.00	0.76†	–4.1	4.0	6.8	5.5	20.3	
RUDENTIAL MUNI. HIGH-INCOME B	B	ML	B+	516.6	–22	5.00**	1.01†	–3.2	3.8	6.1	5.8	19.9	
RUDENTIAL MUNI. INSURED A	D	ML	C–	246.6	–2	3.00	0.75†	–4.0	3.5	5.9	4.9	16.0	
RUDENTIAL MUNICIPAL N.Y. A	C–	MY	C	179.5	–2	3.00	0.84†	–3.8	3.8	6.2	5.1	17.0	
RUDENTIAL NATL. MUNICIPALS A	C–	ML	C	498.2	2	3.00	0.73†	–3.7	3.7	6.0	5.2	12.0	
UTNAM CALIF. TAX EXEMPT INCOME A	C–	MC	C	2573.9	–15	4.75	0.77†	–4.4	3.4	6.4	4.8	11.8	
UTNAM FLA. TAX EXEMPT INCOME A	C–	SL	C–	221.0	–11	4.75	0.98†	–3.6	3.4	5.9	5.3	10.2	
UTNAM MASS. TAX EXEMPT INC. A	C	SL	B	266.9	–12	4.75	0.97†	–3.6	3.4	6.3	5.7	11.9	
UTNAM MUNICIPAL INCOME A	C	ML	B	734.0	–12	4.75	0.98†	–4.0	3.6	6.4	5.3	10.4	
UTNAM N.J. TAX EXEMPT INCOME A	C–	SL	C	188.0	–14	4.75	0.99†	–3.5	3.3	5.8	5.4	9.8	
UTNAM N.Y. TAX EXEMPT INCOME A	D	MY	C–	1337.9	–17	4.75	0.83†	–3.5	3.4	5.7	5.3	10.6	
UTNAM OHIO TAX EXEMPT INCOME A	C	SL	C	164.3	–11	4.75	0.91†	–3.4	3.1	5.6	5.4	11.7	
UTNAM PENN. TAX EXEMPT INCOME A	C–	SL	C–	153.7	–17	4.75	0.98†	–4.3	2.6	5.5	5.4	10.1	
UTNAM TAX EXEMPT INCOME A	C–	ML	C	1641.0	–16	4.75	0.81†	–3.7	3.4	6.0	5.7	9.5	
UTNAM TAX-FREE HIGH YIELD A	B	MI	C–	1145.7	10	4.75	0.87†	–3.0	3.6	6.0	6.0	10.3	
UTNAM TAX-FREE INSURED B	D	ML	C–	286.5	–19	5.00**	0.74†	–4.5	2.8	5.5	4.8	12.4	
OCHESTER FUND MUNICIPALS A	B	MY	B+	3292.6	–4	4.75	0.75†	–5.5	3.5	6.8	6.2	22.0	
AFECO MUNICIPAL BOND NOLOAD	C–	ML	C–	469.2	–13	No load	0.51	–6.2	3.4	6.7	5.4	23.9	
CHWAB CALIF. LONG-TERM TAX-FREE	C	MC	B	187.2	–6	No load	0.49	–6.1	3.2	6.6	5.3	20.6	

[illegible] Frmly Lord Abbet

MUTUAL FUND SCOREBOARD

Bond Fur

FUND	RATING (COMPARES RISK-ADJUSTED PERFORMANCE OF EACH FUND AGAINST ALL FUNDS)	CATEGORY	RATING (RATING COMPARES FUND WITHIN CATEGORY)	SIZE ASSETS $MIL.	% CHG. 1998-99	FEES SALES CHARGE (%)	EXPENSE RATIO (%)	PERFORMANCE TOTAL RETURN (%) 1 YR.	3 YR.	5 YR.	PORTFOLIO YIELD (%)	MATURITY (YEARS)	HISTO RESU ALL
SCUDDER CALIF. TAX-FREE	B	MC	B	306.3	–10	No load	0.76	–2.9	4.3	6.9	4.9	11.2	1 3 1
SCUDDER HIGH-YIELD TAX-FREE	A	ML	A	401.0	–7	No load	0.84	–2.2	5.2	7.7	5.3	10.9	1 2 1
SCUDDER MANAGED MUNI BONDS	B+	ML	B+	691.0	–6	No load	0.62	–2.0	4.4	6.8	5.3	8.9	2 2 1
SCUDDER MASS. TAX-FREE	B+	SL	A	374.3	–7	No load	0.73	–2.3	4.0	6.7	5.1	8.8	2 2 1
SCUDDER MEDIUM-TERM TAX-FREE	B+	MI	B+	559.0	–17	No load	0.72	–1.1	4.0	6.0	4.7	6.2	3 2 1
SCUDDER N.Y. TAX-FREE	C	MY	B	181.4	–16	No load	0.82	–2.8	4.1	6.6	4.8	9.2	2 3 1
SEI TAX-EX. INTERM.-TERM MUNI. A	B+	MI	B	675.1	27	No load	0.60†	–0.8	4.1	5.7	4.2	7.1	4 2 1
SIT MINN. TAX-FREE INCOME	A	SI	A	180.0	–22	No load	0.80	–3.9	3.3	5.5	5.2	20.4	4 1 1
SIT TAX-FREE INCOME	A	MI	A	666.2	–17	No load	0.71	–4.1	3.8	6.0	5.2	17.8	4 1 1
SMITH BARNEY CALIF. MUNICIPALS A	C–	MC	C–	642.1	–15	4.00	0.68†	–5.8	3.3	7.3	5.0	18.9	1 1 1
SMITH BARNEY MANAGED MUNICIPALS A	F	ML	F	1826.9	–26	4.00	0.67†	–7.2	2.5	6.5	5.2	19.2	1 1 1
SMITH BARNEY MUNI. FLA. A	C	SL	B	161.4	–1	4.00	0.73†	–4.5	3.6	6.4	5.5	20.8	2 2 1
SMITH BARNEY MUNI. HIGH INC. A	C	ML	B	281.1	–1	4.00	0.82†	–4.9	3.2	6.0	5.8	21.9	3 2 1
SMITH BARNEY MUNI. LIMITED TERM A	B	MI	C–	250.4	–16	2.00	0.72†	–3.0	3.5	5.0	5.0	9.7	4 3 3
SMITH BARNEY MUNI. NATIONAL A	C	ML	B	389.0	–4	4.00	0.66†	–4.6	3.7	6.6	5.7	21.0	1 3 1
SMITH BARNEY MUNI. N.Y. A	C	MY	B	481.6	–14	4.00	0.70†	–4.4	3.8	6.6	5.4	18.6	1 2 1
STATE ST. RESEARCH TAX-EXEMPT A	D	ML	C–	173.9	–16	4.50	1.03†	–4.3	3.7	6.0	5.0	11.7	2 4 1
STEIN ROE INTERMEDIATE MUNIS	B	MI	C	148.54	-26	No load	0.70	–1.9	3.6	5.5	4.4	8.6	4 2 3
STEIN ROE HIGH-YIELD MUNIS	A	ML	A	284.1	–14	No load	0.77	–2.7	3.9	6.7	5.2	17.1	2 2 1
STEIN ROE MANAGED MUNICIPALS	B	ML	B	497.6	–14	No load	0.72	–3.4	3.7	6.2	5.5	16.3	2 2 2
STRONG HIGH-YIELD MUNI BOND	B+	ML	A	584.0	–9	No load	0.70	–5.5	4.3	6.4	6.3	15.7	3 1 1
STRONG MUNICIPAL ADVANTAGE		MS		2076.5	19	No load	0.50	3.0	4.2	NA	4.2	0.9	1 3
STRONG MUNICIPAL BOND	C–	MI	F	343.7	–1	No load	0.70	–6.5	3.8	5.0	5.7	16.6	4 4 1
STRONG SHORT-TM. HIGH-YIELD MUNI.		MS		163.2	34	No load	0.40	0.8	NA	NA	5.1	2.9	
STRONG SHORT-TERM MUNI BOND	A	MS	B	322.7	22	No load	0.60	1.2	4.5	4.8	4.7	2.8	4 1 4
TAX-EXEMPT BOND OF AMERICA	B+	ML	B+	1871.6	0	4.75	0.65†	–2.3	4.1	6.7	5.1	8.8	2 2 2
TAX-EXEMPT FUND OF CALIF.	B	MF	C	376.6	1	4.75	0.70†	–2.0	4.0	6.6	4.8	8.7	2 2 3
TAX-FREE FUND OF COLO. A	B	SI	B	191.0	–9	4.00	0.75†	–0.8	3.7	5.6	4.8	8.2	4 3 3
TAX-FREE TRUST OF ARIZ. A	B	SI	C	366.4	–9	4.00	0.71†	–2.0	3.9	6.0	5.1	14.8	3 3 3
TAX-FREE TRUST OF OREGON A	B	SI	C	295.7	–9	4.00	0.69†	–2.0	3.6	5.6	5.0	12.0	4 3 3
THORNBURG INTERM. MUNI. A	B+	MI	B	353.4	–5	2.00	0.99†	–2.0	3.5	5.6	4.8	8.6	4 2 4
THORNBURG LTD.-TERM NATL. A	A	MS	C	743.1	–10	1.50	0.97†	0.3	3.5	4.9	4.5	4.3	4 2 4
THORNBURG N.M. INTERM. MUNI. A	A	SI	A	149.25	-5	2.00	1.00†	0.0	3.7	5.3	4.8	6.7	4 2 4
T. ROWE PRICE CALIF. TAX-FREE BOND	B	MC	B+	217.6	–1	No load	0.58	–3.3	3.9	6.6	5.1	15.3	2 2 2
T. ROWE PRICE MD. TAX-FREE	B+	SL	A	1013.2	–2	No load	0.51	–3.2	3.8	6.2	5.4	18.4	3 2 2
T. ROWE PRICE N.Y. TAX-FREE	C	MY	B	197.6	–6	No load	0.59	–4.8	3.6	6.2	5.1	20.0	2 3 1
T. ROWE PRICE TAX-FREE HIGH-YIELD	B+	ML	B+	1199.0	–11	No load	0.71	–5.1	3.3	6.2	5.8	20.6	2 1 1
T. ROWE PRICE TAX-FREE INCOME	C	ML	B	1367.4	–8	No load	0.55	–3.9	3.6	6.2	5.4	15.6	2 3 2
T. ROWE PRICE TAX-FREE SHORT-INTERM.	A	MS	C	421.1	–8	No load	0.53	1.0	3.7	4.7	4.1	4.1	4 2 4
T. ROWE PRICE VA. TAX-FREE	B	SL	B+	276.0	2	No load	0.57	–3.4	3.8	6.3	5.1	16.0	2 2 2
UNITED MUNICIPAL BOND A	C	ML	C	847.3	–13	4.25	0.72†	–5.5	3.1	6.5	5.5	12.4	1 2 1
UNITED MUNICIPAL HIGH-INCOME A	A	ML	A	492.3	–4	4.25	0.82†	–5.2	4.2	7.2	6.1	13.5	2 1 1
USAA CALIF. BOND	B+	MC	A	595.7	–2	No load	0.39	–5.2	3.8	7.5	5.7	15.5	1 1 1
USAA FLA. TAX-FREE INCOME	C	SL	B	170.6	–5	No load	0.47	–6.3	3.5	6.6	5.5	20.0	1 2 1
USAA TAX-EXEMPT INTERM.-TERM	A	MI	B+	2202.5	–2	No load	0.36	–2.6	4.3	6.4	5.6	10.0	3 2 2
USAA TAX-EXEMPT LONG-TERM	B+	ML	B+	1997.1	–8	No load	0.36	–5.0	3.6	6.6	6.1	16.8	1 2 1
USAA TAX-EXEMPT SHORT-TERM	A	MS	A	1006.4	0	No load	0.38	1.8	4.2	5.0	4.7	2.3	4 2 4
USAA VA. BOND	B+	SL	B+	381.5	–1	No load	0.43	–4.6	3.5	6.4	5.7	18.3	2 1 2
VALUE LINE TAX-EXEMPT HIGH-YIELD	C	ML	B	153.61	-15	No load	0.62	-4.8	3.0	5.7	5.0	19.5	2 3 2
VAN KAMPEN HIGH-YIELD MUNI. A	A	MI	A	926.1	2	4.75‡	0.91†	–1.5	5.3	7.1	6.4	20.5	4 1 1
VAN KAMPEN INS. TAX-FREE A	D	ML	D	1099.1	–17	4.75	0.92†	–4.9	2.7	5.7	5.3	19.2	2 3 3
VAN KAMPEN MUNICIPAL INC. A	C–	ML	C	731.1	–10	4.75	0.88†	–5.3	2.8	5.5	6.2	18.4	3 2 2
VAN KAMPEN PENN. TAX-FREE INC. A	C–	SL	C	193.6	–11	4.75	1.04†	–4.4	3.0	5.8	5.8	19.8	2 2 2
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VANGUARD CALIF. INS. INTERM. TAX-EX.	A	MF	A	1262.4	22	No load	0.19	–0.6	4.3	6.3	4.6	7.3	4 1 3
VANGUARD CALIF. INS. LONG TAX-EX.	B	MC	B	1492.5	–1	No load	0.19	–3.1	4.0	7.0	5.3	12.6	1 1 2
VANGUARD FLA. INS. LONG TAX-EX.	B	SL	B+	885.2	–1	No load	0.20	–2.8	4.2	6.7	5.1	12.2	2 2 3
VANGUARD HIGH-YIELD TAX-EXEMPT	B+	ML	B+	2752.8	–1	No load	0.20	–3.4	4.0	6.8	5.7	12.7	2 2 2
VANGUARD INS. LONG-TERM TAX-EX.	B	ML	B+	2153.0	–5	No load	0.20	–2.9	3.8	6.7	5.5	11.6	1 2 2
VANGUARD INTERM.-TERM TAX-EX.	B+	MI	B+	7919.8	0	No load	0.18	–0.5	4.1	5.9	5.1	6.9	4 2 4
VANGUARD LIMITED-TERM TAX-EX.	A	MS	B+	2568.9	7	No load	0.21	1.5	3.9	4.8	4.3	3.3	4 2 4
VANGUARD LONG-TERM TAX-EX.	B	ML	B+	1486.6	–3	No load	0.21	–3.5	3.8	6.7	5.5	12.9	1 2 2
VANGUARD N.J. INS. LONG TAX-EX.	B	SL	B+	1118.3	0	No load	0.20	–2.4	4.1	6.4	5.3	11.0	2 3 2
VANGUARD N.Y. INS. LONG TAX-EX.	B	MY	B	1426.3	0	No load	0.21	–3.4	3.7	6.5	5.3	12.5	2 2 2
VANGUARD OHIO INS. LONG TAX-EX.	B	SL	B+	366.2	12	No load	0.20	–3.0	3.8	6.4	5.3	12.0	2 2 3
VANGUARD PENN. INS. LONG TAX-EX.	B+	SL	A	1793.1	–8	No load	0.20	–2.7	3.8	6.3	5.5	11.1	3 2 3
VANGUARD SHORT-TERM TAX-EXEMPT	A	MS	A	1916.9	16	No load	0.20	2.6	3.7	4.1	3.7	1.2	4 3 4
WELLS FARGO CALIF. TAX-FREE A	C–	MC	C	415.7	–16	4.50	0.75	–4.1	3.7	6.2	4.4	15.2	1 2 3
WM CALIF. MUNICIPAL A	C	MC	B	272.3	–6	4.50	0.89†	–4.5	3.8	6.6	5.4	19.4	2 2 1
WM TAX-EXEMPT BOND A	C–	ML	C–	234.2	–20	4.50	0.84†	–4.4	2.9	5.8	5.6	17.0	1 4 2

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The Harold W. McGraw, Jr. Prize in Education 1999

·re's to the leaders of this millennium ıo are shaping education for the next.

·t of The McGraw-Hill Companies' advocacy of education, The W. McGraw, Jr. Prize in Education was established in 1988 to mark poration's 100th anniversary and to honor its Chairman Emeritus for long commitment to education. This award recognizes leaders in on whose innovative thinking and indomitable spirit inspire us all eve a higher level in educating young people.

·ear, we identified three positions – Governor, Urban Superintendent lucational Researcher – whose potential for improving the public ion system is great. Our search for the 1999 winners of The McGraw ielded three individuals whose leadership and vision have far exceeded tential. We are honored to salute them.

N I. GOODLAD For more than a half century, Dr. John I. Goodlad rked to create a vision to revolutionize public education. The serious on reform efforts mounted in this country were inspired, in part, by his tive research and writings. His writing also spawned experiments agogy and school partnerships, revamped curricula for the nation's ; of education, and helped to raise standards at local and national levels.

)84 book, *A Place Called School*, was honored as the "most ·uished work of the year" by the American Education Research ation and has been central to whole school reform efforts. *eachers for Our Nation's Schools* in 1990, he spurred a transformation in r education.

oodlad deems public education an inalienable right, critical to racy, and an essential instrument in creating the values at the core ividual and collective democratic character. Two generations of ·s, administrators, policy board members and university faculty ken Dr. Goodlad's thoughtful research to heart, examining their own es and improving learning for all. He is currently Co-Director Center for Educational Renewal at the University of Washington, and ·nt of the Institute for Educational Inquiry.

RY HOUSE As Superintendent of Schools of the City of Memphis 1992, Gerry House has transformed the largest school system in see – the 20th largest in the nation – by doing what others were merely ·ing. She did not wait for "raising standards" to become a national ion movement before putting its tenets into place. Instead, she became er.

Over the last five years, Dr. House has tackled reform at all levels, from reducing class size to integrating state-of-the-art technology. She has introduced character education, streamlined bureaucracy, established alternative schools and spearheaded a capital campaign to improve school buildings.

Thanks to Dr. House's unflinching commitment to excellence in education, achievement gains in student performance in Memphis schools have accelerated dramatically over the last three years, the dropout rate has declined and incidents of violence have substantially fallen.

GOVERNOR JIM HUNT From the time he served as North Carolina's lieutenant governor, through his current historic fourth term as governor, Jim Hunt has demonstrated a stunning professional, political and personal commitment to education. He has pushed to make kindergarten available to every child and helped to lead the first wave of response to *A Nation at Risk*. He and his wife also tirelessly volunteer in Raleigh schools every week.

The education policies and practices Governor Hunt has put in place have become national models, with accountability always at the core. Beginning in 2000, all North Carolina students will have to pass a challenging exit exam to graduate from high school. If a graduate cannot master basic skills once on the job, the state will retrain that worker at no expense to the employer. Teachers also face tougher standards for tenure and license retention, and salaries are pegged to classroom performance.

Thanks to Governor Hunt's unflagging efforts, North Carolina has more teachers certified by the National Board for Professional Teaching Standards than any other state in the nation and has improved its national ranking for teacher salaries. Governor Hunt's leadership and actions have also resulted in North Carolina being ranked by the National Education Goals Report first among states in 1997 and 1998 for posting the most impressive improvements toward reaching the nation's education goals.

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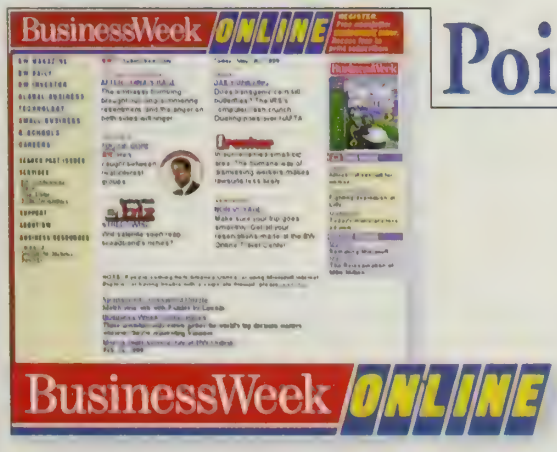

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APRIL 17 WILL BE HERE BEFORE YOU KNOW IT

BusinessWeek Investor

The PC vs. the CPA

More are using tax-prep software, but it can pay to go to a pr

BY MIKE McNAMEE

YOUR TAXES

Anne Angelopoulos is moving against the electronic tide. For the past three years, she has filled out Form 1040 on her PC using Quicken TurboTax. But now she has decided that doing taxes for her family of four is no longer a do-it-yourself job. After a merger eliminated her job last September, Angelopoulos started working from her Coconut Creek (Fla.) home as an independent contractor for an executive-search firm. "Now I have a home office, commissions, business expenses, and no withholding," she says. "I don't want to mess up."

Preparation

Last year, 25% of taxpayers—close to 30 million—filed using tax-preparation software. An additional 2 million will switch this year, Microsoft says. Tax preparation is one of the fastest-growing uses for personal computers—a prime reason why the Lords of Redmond just launched their own entry, Microsoft TaxSaver. The tax software producers would have you believe few situations are beyond the reach of their programs. "Our product is designed to do even the most complex returns," says Monica Muilenburg, marketing director for Intuit's tax products. Intuit founder Scott Cook his taxes on TurboTax, she says, that's one complicated 1040."

But don't fire your accountant just True, tax software gets better every year. our review of the three major programs—Tu Tax, TaxSaver, and Block Financial's Kipli TaxCut—shows that all still have definite lin

Using data on sample taxpayers provided accountants Ernst & Young, we prepared t returns on each program. I nine cases, our PCs produ tax bills within $1 of the ure Ernst & Young compu All three offer free electronic filing, which sp up refunds and reduces errors. (President C ton's proposed $10 tax credit to encourage e-f won't apply to 1999 returns.) Our first p through the complicated return took just t thirds of the 6.5 hours that the Internal Reve Service estimates you'll spend on a paper-a pencil 1040. And even our most complicated turn didn't explore all the backwaters of the code that these programs can navigate.

Of the three, we liked TurboTax the best. well-honed interview anticipated most of needs, and its frequently asked questions (FA were clear and concise. The new entry, TaxSa

to beef up its Q&As to help filers sort out factual situations. (Like other Microsoft cts, TaxSaver also forces users to load In- t Explorer—a 45-minute exercise that ed our PC twice.) TaxCut, while best orga- to handle simple returns, needs to spiff d improve its navigation tools to match of the others'.

t all three had a common failing. On such lex subjects as figuring the cost basis of vestment (page 128) or calculating the of stock options, these programs default IRS directions—the murky language that ser hoped to avoid. Cost basis, which ils owners of taxable mutual funds, is the disappointing lapse. TurboTax has a me description of four methods for uting a fund's basis, but worksheets have been much more helpful.

e, some tax situations are beyond any hope plification. Take the alternative minimum MT), a parallel code designed to catch filers who make heavy use of tax breaks. All three programs alert users to the AMT. But follow their warnings and you're soon lost in a maze of ill-defined terms, such as "patron's adjustment" and "preference items." Odds are, none of these apply to you—but your PC is not giving you the reassurance you hoped for.

Who should skip the software and pay for a professional preparer? Frank Degen, an enrolled agent in Setauket, N. Y., calls his prime prospects "Cs, Ds, and Es," after the 1040 schedules used to report business income, capital gains, and income from partnerships, estates, and trusts. Self-employed taxpayers are particularly vulnerable to "the gray areas, like where you draw the line between business and personal use of your car," says Degen.

Major changes in your life—marriage, divorce, having a child, sending one to college, inheritance—could also send you to a pro. Congressional efforts to help families are mucking up their tax preparation. "The new child credit and education breaks [Hope Scholarships and Lifetime Learning Credits] are among the most complex items I've ever seen for ordinary people," says Martin Nissenbaum, Ernst & Young's director of personal tax planning.

Job changes and moves get many do-it-yourselfers in over their heads. And as stock options become more common, more taxpayers are beating a path to the pros: Nonqualified options require tricky annual calculations, while the less common incentive stock options run the risk of landing you in the AMT.

APE THE ACCOUNTANT. The good news is you don't have to take such issues to a preparer every year. Once you've seen how a pro handles, say, alimony and child-support payments, you can follow that template year after year. Conversely, if you're doing your own taxes, it might be smart to let a preparer review your figures every third year. If you've been overlooking income or entering numbers in the wrong places, you have time to file amended returns to fix past errors.

The best thing a pro can give you is advice—help in structuring your investments and benefits for the most tax savings. "The one thing all my clients say is: 'Give me a preparer who'll tell me what to do to save more,'" says Mari Adam, a certified financial planner in Boca Raton, Fla. And while a tax planner can work off a return you completed, accountants say they get a better feel for your situation if they prepare your schedules themselves.

Ultimately, the choice of doing your own or going to a pro comes down to how you like to use your time. "There's nothing simpler than mowing your lawn," notes Degen, "but millions of people pay someone else to do it." Tax software is making the task of rendering unto Uncle Sam easier every year. But if you've got an especially complicated situation—or if you just figure you've got better ways to use your time—pack up your shoebox of receipts. Your neighborhood accountant awaits. □

Crunching the Numbers

GE	PRICE*	PROS	CONS
ROSOFT AVER	$19.95	Clear navigation	No state tax programs
KEN BOTAX**	29.95	Best interview, best FAQs	Cluttered with ads
INGER UT	24.95	Streamlines simple returns	Awkward navigation

es are for deluxe versions, after rebates, and include one free electronic fil- TurboTax includes one free state program; TaxCut includes all state returns oTax is also available for Macintosh as MacIntTax.
UBLISHERS BUSINESS WEEK

When To Go For Tax Help

LIFE EVENTS
Marriage, divorce, and remarriage all can raise tax issues. New credits for children and college expenses can complicate your return. Retirement income is easier to report than it used to be, but planning is crucial.

CAREER EVENTS
Changing jobs, moving, and taking a severance package add new tax wrinkles. If you're self-employed, use a preparer the first year you're in business for yourself and every third year, at least, after that.

INVESTMENT EVENTS
Exercising stock options, particularly incentive stock options, can be tricky. Complex investments deserve professional review. Gains on stocks involved in takeovers or corporate breakups can be tough to calculate.

TAX PLANNING
Advance decisions on how to structure work benefits and investments can save big bucks. That's often not a do-it-yourself job.

Coming Soon: The Truly Paperless Return?

Your W-2 and 1099 info could be just a click away

BY HOWARD GLECKMAN

YOUR TAXES

No question, tax preparation software is making our lives easier. Not only does it help us figure out what numbers go in which box, it does much of the headache-inducing math that infects the dreaded Form 1040. But software can't help with what can be the most time-consuming and error-laden part of the process: gathering all those little scraps of paper that arrive in the mail January and February.

Come spring, many of us are buried in d W-2 wage forms, 1099 interest and divide tices, 1098 mortgage payment reports, and rest. However, help is on the way. This yea tax preparation outfit—Intuit—is testing a that will allow TurboTax users to download t porting information from financial instituti rectly to their software. If it works, don't b prised if, in a couple of years, all that pape the way of the Princess phone.

Here's the idea: You would electronical port 1099 and other tax information di from your broker to your tax software, wh would magically appear in just the boxes on your computer screen. "made significant progress in makin prep easier," says Robert Meighan, eral manager of Intuit's persona group. "But the thing that's really going to time is when we make this an auton process."

Plenty of bugs need to be worked And it will take a change in federal la the process to be really attractive t financial firms that generate the f For them to save money, for exa the law that now requires them to the paperwork to taxpayers mus revised. But brokers al routinely download month even daily account statem directly to financial-man ment software, such as it's Quicken or Micros Money. Compared with downloading annual tax porting data should be ple. "The techno could be avail quite quic says Jeff T product man for Microsoft's Saver. But, he a industry and the ternal Revenue vice must still agre formats for the downlo "The much harder will be getting agreem on how the processes work," he says.

Most taxpayers would take less than an hour to prepare a return

TEST RUN. This tax season, TurboTax will give downloading scheme its first test, most likely tered around customers of Salomon Smith Ba and Fidelity Investments. While it has not yet mally agreed to participate, Salomon's on clients are likely to be able to download 1099s and profit-and-loss statements—inclu adjusted purchase prices of securities—dire to the Web version of TurboTax. At the s time, about 200,000 of Fidelity's wealthier tomers will be allowed to download similar dat desktop TurboTax software. All they will

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pand and thrive in the world of e-commerce. From venture funding,
ategic consulting and back-end integration to web development
d indelible branding, it's rare to find a company that knows the
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to do, says Dan Kraut, Fidelity's vice-president for online brokerage, is go to the Fidelity.com Web site and request the service. Their 1099 and Schedule D capital-gains data will be downloaded to their home computers. From there, they will just need to open their TurboTax software and transfer the data file. Fidelity figures that 20,000 to 50,000 customers will actually try out the system this year. Says Kraut: "Our goal is to give the customers the data they want in the form they want it."

Just about everything an investor needs will be available in these tests. Included will be interest, dividend, and capital-gains information for nearly all brokerage transactions. To think about how big a change this would be, consider what happens today. In January, a broker's computer spits out 1099s for all its customers. While it sends the IRS a computer tape with all that information, it must print it out and mail paper copies to individual customers. They, in turn, throw them in a drawer until they crank up tax prep software and punch the numbers into a box on a computer screen.

Unfortunately, taxpayers too often transpose numbers or put them in the wrong places. For people who don't file electronically, the process gets even stranger. They must print out their returns and mail them to the IRS, where someone inputs them back into a computer. All that shuffling of data back and forth means mistakes. It wastes the time of taxpayers, and it costs banks and brokers a small fortune in printing and mailing costs. But if all the information were downloaded directly into tax programs, the vast majority of taxpayers could file a truly paperless return. After all, most individuals receive their income solely from wages, interest, and dividends—all data that could be easily downloaded.

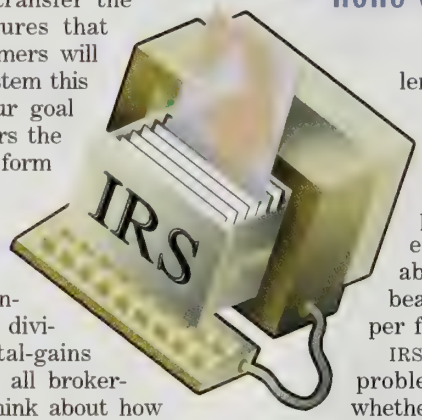
"BIGGEST CHALLENGE." Deductions are more complex, but mortgage interest payments could be handled smoothly. So could state and local income and real estate taxes, if local governments got on board. Downloading other itemized deductions—medical expenses and charitable contributions, for instance—may be more difficult. However, since barely a quarter of all taxpayers itemize, most of them ought to be able to file in less than an hour. It would be the high-tech equivalent of the tax-return-on-a-postcard that reformers have dreamed about for years.

Despite the advantages of largely electronic tax preparation, Intuit's Meighan says Turbo has had trouble persuading financial institutions to participate in the test. "Our biggest challenge has been getting [them] on [illegible] They need to have a compellin[illegible] son to make this available." O[illegible] son for the resistance: Feder[illegible] requires that 1099s be sent t[illegible] payers by first-class mail. As a [illegible] even if brokers make the data [illegible] able for downloading, they mus[illegible] bear the cost of printing and maili[illegible] per forms to the same customers.

IRS officials say they are aware [illegible] problem, and are trying to dete[illegible] whether they can fix it through regulat[illegible] whether it will require legislation. But [illegible] Barr, assistant commissioner for electron[illegible] administration, says the agency will do w[illegible] can to solve the problem. Last year, 20 mil[illegible] 30 million taxpayers did their returns on a [illegible] top, and an additional million used the [illegible] With companies such as Intuit and H&R Blo[illegible] fering full-blown tax-prep products on th[illegible] ternet, and investment-advisory firms su[illegible] H. D. Vest offering free Web filing, onlin[illegible] preparation may be coming of age (table). B[illegible] million returns are still being being done w[illegible] pencil, notes Intuit co-founder Scott Cook.

It's the same story with e-filing, wher[illegible] IRS is placing its own huge bet. Still, on[illegible] million households—just a quarter of all [illegible] payers—will file electronically, says Barr. [illegible] most will do so through a professional tax [illegible] parer, rather than on a home computer. [illegible] reason people have been slow to accept e-[illegible] and filing is because they feel the softwar[illegible] mains too complicated and time-consuming. [illegible] if efforts to assemble all those scraps of p[illegible] for you on a Web page or your desktop suc[illegible] the chore we all hate will become a lot [illegible] palatable.

Financial institutions have been reluctant to participate. Fe[illegible] law requires 1099s to be se[illegible] by mail, so they would save [illegible] none of the costs of printi[illegible]



Data Mining At Tax Time

Several financial-services firms and Intuit are testing a new system that will allow you to download key tax data directly to your tax software. Here's some of the information you eventually should be able to obtain online:

- 1099 dividend and interest statements
- W-2 wage forms
- 1098 mortgage payment reports
- Gain/loss reports for sales of stock and bonds
- K-1 partnership statements

Where To File Online

SITE	ADDRESS (WWW.)	FEDERAL RETURNS	STATE RETURN
H.D. VEST	hdvest.com	Free	Free
H&R BLOCK*	hrblock.com	$9.95	$4.9[illegible]
KIPLINGER TAXCUT ONLINE*	taxcut.com	$9.95	$4.9[illegible]
TURBOTAX FOR THE WEB*	turbotax.com	$9.95	$9.9[illegible]

*Form 1040EZ is f[illegible]

ere Come the E-Funds

v crop of Web-only mutuals are cheap—for now

NE
SEN

First, there were online stockbrokers. Now, get ready for online mutual funds. Over the past year, a handful of cyber-startups with hip monikers such as X.com and StockJungle have launched mutual funds exclusively for online customers. "Someday, all funds will be forced to compete with the benefits the Net can provide," says Michael Witz, chairman of StockJungle, based in Culver City, Calif.

StockJungle, for its part, is promoting the Internet's power to deliver cost savings by waiving management fees on its Standard & Poor's 500-stock index fund. X.com is going one step further by depositing $20 in new accounts and promising investors one extra basis point of return—or 10¢ per $100—on its own S&P 500 fund. The Palo Alto (Calif.) firm is also subsidizing a portion of the expenses its money-market and bond funds incur. A third startup, whatifi funds of San Francisco, declined to disclose fees on the five index funds it plans to launch in March. But CEO Harris Fricker says whatifi will "be very cost-competitive."

Online Mutual Funds

AMILY/ S (WWW.)	FUNDS	FEATURES
ADE e.com	Six index funds, including S&P 500, e-commerce, tech	For E*Trade customers only
FUND markets.com	OpenFund	Posts real-time updates of holdings online
KJUNGLE jungle.com	Community Intelligence Fund. S&P 500 fund	Solicits stock picks from investors, charges no fees
M	S&P 500 Fund	No fees and contributes an extra 0.01% of return

For those with meager nest eggs, whatifi and X.com's no-minimum-investment policies are attractive. Vanguard charges $20 annually when an S&P account balance falls below $2,500, but "you can put $2.50 into X.com's funds" and still face no monthly charges, says founder Elon Musk. Other cyberfunds are using the Web to open the shrouded world of mutual-fund management to public scrutiny. Although funds are only required to disclose holdings once every six months, Metamarkets' OpenFund and StockJungle's Community Intelligence Fund post trades online as they occur, listen to Web site visitors' investment ideas, and publish frequent reports from managers. Still, this new breed of fund is not for everyone. To cut costs, most require investors to agree to receive communications—including prospectuses and statements—electronically. Although the Securities & Exchange Commission has yet to give its blessing, some Web-based funds, including E*trade's and whatifi's, even reserve the right to cash out investors who demand paper. Others, including OpenFund, may impose extra charges.

Investors also run the risk that funds that are free today may not be such deals tomorrow. The S&P 500 funds run by StockJungle and X.com are free because their sponsors are waiving management fees of 50 and 28 basis points, respectively. Both insist they have no plans to hike charges. The no-cost fund, explains X.com's Musk, is a "loss leader" designed to attract investors who must first open a banking account.

BE WARY. Sales of additional products are necessary because electrónic communications are unlikely to generate enough savings to fund the startups' giveaways. John Payne, a consultant at the Boston research firm Cerulli Associates, estimates that doing away with paper and telephone transactions would reduce expense ratios by a mere 5 to 10 basis points. That's significantly less than the subsidies many Web-based fund firms are currently underwriting. Indeed, StockJungle estimates it could lose $1 million a year on its free fund. "You have to be wary of a loss leader, especially when you can get all the service and dependability from a traditional index fund for only 18 basis points," says Morningstar analyst Russ Kinnel. Another concern is the funds' nonexistent track records. Although X.com and whatifi are outsourcing management of their index funds to Barclays Global Fund Advisors, StockJungle is going it alone. "There is some value a good manager can add," says John Woerth, a spokesman for Vanguard Group, whose 500 Index fund is the largest of its kind. "Our fund actually beat the index last year."

The new online funds have attracted some $250 million—a pittance compared with the $104 billion in Vanguard's 500 fund. If you want to invest in one, be prepared to rely on electronic service, untested fund sponsors, and pitches for other products you may not want. Maybe there really is no free lunch after all.

WOMEN'S INVESTING: VIVE LA DIFFERENCE

BY TODDI GUTNER

Women tend to build up inadequate nest eggs—and that's why they need advice tailored to their needs

I had tossed out a half-dozen press releases, deleted as many e-mail messages, and ignored several books that were sent to me before I took notice. The subject of women and money seemed to me to be a marketing ploy by brokerage firms and mutual funds, a superfluous segmentation of the investing market. Aren't investing goals and strategies—determining your financial goals, identifying your risk tolerance, and creating an asset allocation plan—the same regardless of gender?

The answer is emphatically "no." Women have different investing and financial attitudes and needs (table). For the most part, they abdicate investing responsibilities to their husbands and take less financial risk than men when they do invest. Their needs also differ. A woman earns less than a man for the same job, takes more time off work to raise a family, and lives seven years longer, on average.

These critical differences mean that women tend to build inadequate nest eggs. And that is why I am doing this new column. In it, I will cover strategies women need so that they can address their unique situation now and plan for retirement. My goal, in part, is to promote financial independence for women. It's necessary. Some 90% of all women, either through divorce, widowhood, or because they have never married, will be in charge of their own finances at some point in their lives.

WAKE-UP CALL. The movement to bring greater financial independence to women has been building for some time, and Oppenheimer Funds CEO Bridget Macaskill is one of its guiding lights. Back in 1992, she commissioned a survey on the topic and found, among other thin women's investment knowledge lagged The study helped to galvanize others Street, and their efforts finally got my at That, however, is just the beginning. enough to be aware of the differences. needed is action. Says Macaskill: "Let women the positive reinforcement that t invest and they can do it well."

In the broadest sense, professional a professional women from their teens t their 80s need to learn about financial str that apply to their age group. This will b quent topic in future columns. For ex how does a recent widow mak she gets all of her late hus retirement and insurance fits? Aside from age-r strategies, I will deal w sues posed by lifestyle mographics, and careers can women entrepreneu into venture-capital fu domain typically dom by men? Then there fact that the num women heading h holds now r equals the nu of men. That r questions a women's strat for property and disa insurance. 'As incre numbers of en gain inve experience, they can others how they achi their success. To women tap into this ligence, I plan to chat sessions savvy female inve on Business Week Online. That will be one of the online components of this col We will also feature video, interviews, and panded stories.

But this column cannot succeed without input. I want and need to hear from you. E- your comments, criticisms, and suggestion hers@businessweek.com.

One last important note. Although this col is about women and money, it is not for wo only. It is also for men who wish to help wo achieve financial independence. Male rea should pass the column along to their wi mothers, sisters, girlfriends, or daughters. T like me, may initially ignore the call to a Sooner or later, however, they will have to attention.

To check out hers.online, go to www.b nessweek.com/investor/

The Financial Gender Gap

INCOME Women typically earn 60% to 80% of what men earn doing the same job.

EMPLOYMENT Women, on average, take 10 years off from the workforce to raise a family, vs. only 12 months for men. Those years out of the workforce mean decreased pensions contributions and savings.

LIFESPAN The average female lives seven years longer than the average male.

QUESTIONS? COMMENTS? E-mail hers@businessweek.com or fax (212) 512-2538

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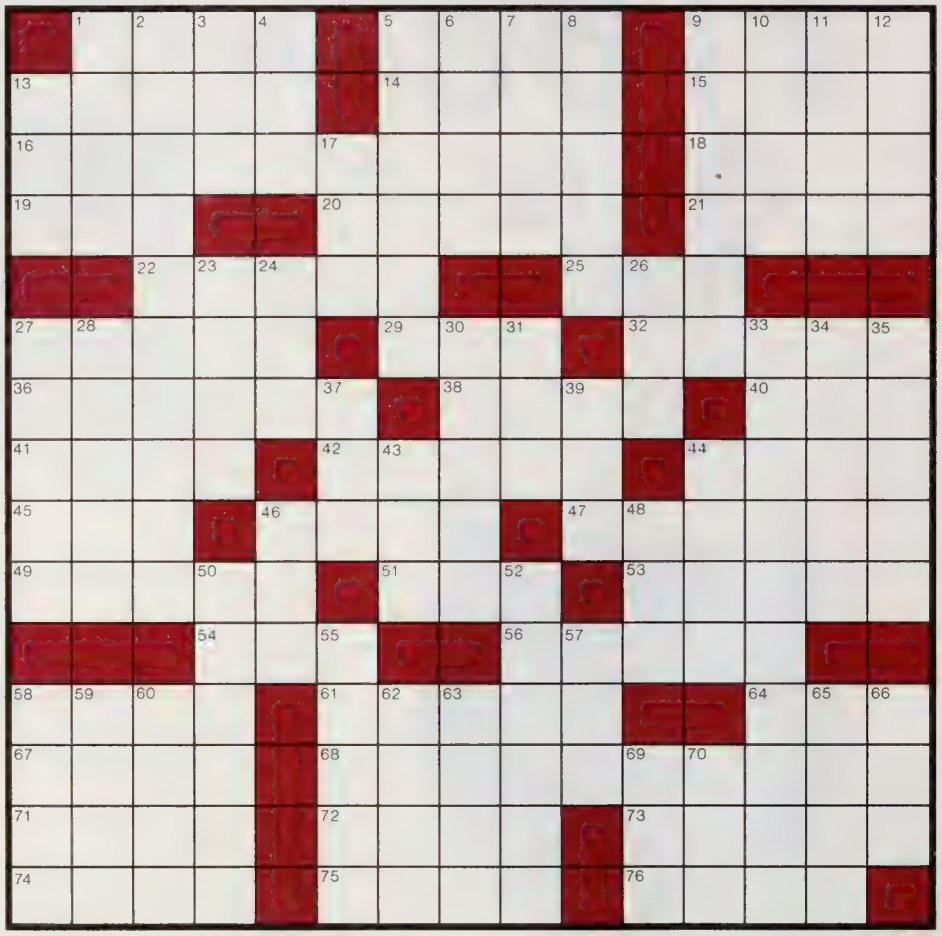
Mixing Business with Pleasure by Lincoln

Puzzle #24



ACROSS

1. Air conditioner units: Abbr.
5. Limo riders: Abbr.
9. Escaped
13. Intel cofounder
14. "__ bigger than a breadbox?"
15. Big name in the block business
16. Greenspan concern re bulls
18. Company name that may ring a bell
19. Guiliani's domain: Abbr.
20. Take, as advice
21. Learning Company computer game
22. Winfrey's production company
25. Agency with a home page within www.whitehouse.gov: Abbr.
27. Visual __ (Microsoft computer language)
29. Office boss: Abbr.
32. Back speculatively
36. National Railroad Passenger Corporation, familiarly
38. The Dalai __
40. Compass reading
41. David Glass and Lee Raymond: Abbr.
42. French bread
44. Large quantity
45. Time Warner network
46. Read a bar code
47. Go to a higher court
49. Designer Simpson
51. AMA members: Abbr.
53. Business __ Mail (Postal Service offering)
54. Network owned by 5 Down
56. Bag for diplomatic couriers
58. NASD subsidiary
61. Buffett's headquarters
64. Bran source
67. Major copper exporter
68. Fidelity spokesperson
71. Ruler of Kuwait
72. Suffix for comment
73. French river
74. Columbia Records owner
75. Do demolition
76. Otherwise

DOWN

1. Squarish
2. Disney film-production company
3. Citified area, for short
4. Be a spectator at
5. Redstone's realm
6. Does not exist
7. Prefix meaning "one trillio
8. Onetime office assistant
9. Steak style
10. Impose, as a tax
11. Teamwork obstacles
12. Word of warning
13. Seven of the nine Suprem Court justices
17. Blame, so to speak
23. Broadcasts
24. Onetime owner of Random House
26. Finance degree: Abbr.
27. Prefix for laureate
28. Change, as by-laws
30. Pituitary, for one
31. Operated
33. Bank at the office
34. Basketball star Shaquille
35. Recently
37. TRICON division
39. Former owner of Universal Studios
43. Type of computer memory:
44. Risky business, for short
46. Type of IRA: Abbr.
48. Insurance giant, for short
50. "American __" (see page at right)
52. Social stratum
55. Type of stock
57. Raft implement
58. Imitates
59. Interoffice communication
60. Green land
62. Introduction to physics?
63. The whole gamut
65. Estate unit
66. Word ignored by alphabetize
69. First U.N. secretary-general
70. Fashion monogram

For answers to this puzzle:
Turn to page 133 in this week's issue of Business Week or visit Mixing Business with Pleasure by Lincoln on www.businessweek.com (URL: www.businessweek.com/adsection/puzzlesbylincoln/index.htm)

Puzzle created by: Stanley Newman.

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A CAPITAL-GAINS MIRACLE WORKER

BY ROBERT BARKER

A new program, GainsKeeper, makes child's play of a thorny task: Figuring out the cost basis of any block of stock

I don't believe in Hell. I might reconsider, though, if I could be sure that a special spot there awaits everyone responsible for the earthly torment that is Schedule D, where investors report capital gains and losses to the Internal Revenue Service. This annual torture is only getting worse with today's endless parade of mergers, spin-offs, carve-outs, special dividends, and stock splits. Any can wreak havoc with the numbers you need not just to fill out Schedule D but also to minimize capital-gains taxes.

That's why I suspect many active investors will cry hallelujah after they spend a little time at a new Web site, www.gainskeeper.com. The service, now being offered free to early registrants, is the brainchild of a Quincy (Mass.) start-up formed last year by veterans of Fidelity Investments and Andersen Consulting.

To see how GainsKeeper works, I recently spent lots of time at the site, creating portfolios, real and imaginary, and testing the tools. Dreaming, for example, that I had been wise enough last January to purchase stock in fiber-optic-equipment maker Uniphase, I entered an imaginary position of 150 shares bought at $69. GainsKeeper caught my mistake when I tried to enter the stock's current ticker symbol, JDSU, which it adopted after a merger last July, instead of the one it had when I "bought" the stock, UNPH. So I entered UNPH and recorded the purchase. A click or two later, GainsKeeper rendered a full record of how those 150 sh mutated: Two stock splits, one merger ticker symbol, and a new name, JDS Unip er, I had 600 shares worth $109,800. cost, including a $29.95 brokerage fee: $1 My unrealized long-term gain: $99,420.05.

GainsKeeper did that by reaching in bases with records of splits, spin-offs, a "corporate actions." Even if you're a buy- investor, these events can make finding y sis," or adjusted cost, in a stock a horror But in my imaginary portfolio, Gains showed itself able to do much of the wo matically. The service adjusted the basis f in General Motors that last May spawned in Delphi Automotive Systems, allocating t portion to GM and Delphi.

TAX-SAVVY. You also can go to GainsKee ter your entire trading record for 199 across multiple investment accounts, and p aggregate report that you could copy onto ule D. As 2000 progresses, you might ente trades as you go along and be set for ne season. GainsKeeper also can help you tra tax-savvy way by continuously tracking gains and losses, short- and long-term, r and unrealized. It details which lot of stock be the best to sell. If you bought, say, 300 of IBM in three separate lots of 100 shares ious prices, you'll want to tell your bro sell the highest-cost lot first to minimi capital gain—and your tax bill.

GainsKeeper d work as well with scape's browser a Microsoft's Interne plorer. It worked America Online, was unbearably clearing BUS WEEK's corporate wall. It didn't r holdings in fract shares, a big pro for anyone reinve dividends. The com says that will be soon, but full tracki mutual funds and ing data to and software such as Quicken or your broker's puters may be some time off. Finally, and least, many people will balk at posting so private data. That's a personal choice. For it's worth, CEO Duncan Routh told me: "We have a business if we don't respect privacy.

Despite its deficiencies, I see GainsKeepe a terrific innovation. If brokers want to s clients as their ads promise, they'll follow su go one better. Even if you don't use GainsK er, you can help yourself by asking your br when he'll hand you such a sharp tool.

For barker.online, go to www.businessw com/investor/ or AOL keyword: BW Daily.

The Basis of a Nightmare

Splits, spin-offs, mergers, and other corporate transactions can make figuring out your adjusted cost, or "basis," in some stocks a nightmare. Here's one such case:

In July, 1993, you bought 300 shares of Marriott for $3,000. You now own:

300	shares Host Marriott	Basis of $502.47
60	shares Host Marriott Services	61.44
600	shares Class A "new" Marriott International	2,234.24
75	shares Sodexho Marriott Services	201.85
30	shares Crestline Capital	459.00*

*Not counting commissions. Total exceeds original $3,000 cost because Crestline shares were paid as a taxable distribution.

DATA: GAINSKEEPER

QUESTIONS? COMMENTS? E-mail barkerportfolio@businessweek.com or fax (321) 728-1711

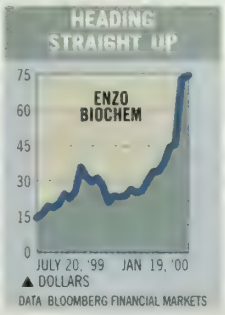
IZO MOVES IN ON HIV

HE G. MARCIAL

s up on Enzo
em's gene
ay for HIV.
ign buyout
help revive
naker Rouge.
ew partners
ive FuelCell
y a jolt

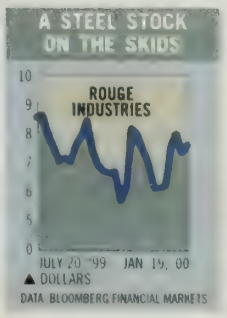
The meteoric rise of Enzo Biochem (ENZ) from 14 in July to 74¾ on Jan. 19 is remarkable for a biotech stock in this Net-gaga market. Axxel Knutson, research director at tradingweapon.com, a unit of Platinum Equities, predicted in mid-November, when Enzo was at 25, that it would blast to 37. Knutson now thinks Enzo, which moved from Nasdaq to the Big Board on Jan. 14, could double. Enzo was first highlighted in this column on Aug. 31, 1998, when it was at 11. What's behind the surge?

Enzo President Barry Weiner says "early results from certain aspects" of clinical trials have produced "impressive positive results." Using patients with HIV, Enzo is conducting Phase I tests of a new treatment at the University of California at San Francisco. Employing its patented gene-transfer device, Enzo has been able to deliver huge doses of Enzo's gene medicine to patients' blood cells to build up the immunities of people with HIV. "And we are seeing continued activity of the cells," Weiner adds. This is a breakthrough, he says, in genetic medicine to fight the replication of infected cells. Enzo, which develops biomedical products largely used to detect viral infections, focuses on nucleic acid probes to detect sexually transmitted and other infectious diseases, such as AIDS and hepatitis.



Donald Selkin, chief strategist at investment firm Joseph Gunnar, says part of the sharp runup in the stock is due to the 2 million-share short position on Enzo. "The news on the HIV tests spurred the shorts" to buy stock to cover their positions, says Selkin, who expects Enzo to split its stock soon. Enzo posted operating revenues of $44.3 million in fiscal 1999, and earnings of $6.5 million, or 26¢ a share, up from 1998's $40.4 million and 13¢, respectively.

BRAZILIANS MAY PUT ROUGE IN THE PINK



Shares of Rouge Industries (ROU), a producer of flat-rolled carbon steel products—primarily to carmakers—have been down on two counts: Steel stocks have yet to join the bull market, and Rouge has not yet fully recovered from a couple of mishaps. In February, 1999, an explosion damaged one of its plants, and in November, a power outage disrupted operations. The stock has been on the skids, down from 14 a year ago to 7⅛ on Jan. 19. "The whole steel industry is depressed, but Rouge is very depressed," says Waldo Best, a steel analyst at Morgan Stanley Dean Witter.

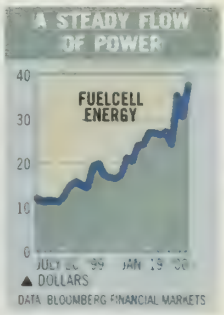
But don't count Rogue out just yet. Best thinks the stock has become a cheap buy. The company has no debt—and has healthy cash flow, he notes. And Rouge's book value is estimated at $19 a share. Best expects Rouge to earn $1.05 a share this year, vs. a $1.75-a-share loss in 1999.

Some hedge funds have been buying shares of late for one other reason: They say a Brazilian company is negotiating to buy Rouge for twice its current price. "The explosion had broken off talks," says one New York fund manager, "but the parties resumed talking recently." He says Rouge will give the Brazilians U.S. manufacturing capabilities and an entry to the Detroit market. The foreign suitor produces slab steel that companies such as Rouge use as raw material in making finished steel. Rouge CEO Carl Valdiserri owns 54% of the voting shares. A company spokesman declined comment.

JUICED UP AT FUELCELL ENERGY

Fuel cells. That's the latest idea that has caught the Street's fancy. Shares of fuel-cell developers have surged, among them FuelCell Energy (FCL), which rose from 11 in late July to 37½ on Jan. 19. Why fuel cells? Like batteries, fuel cells produce electricity without combustion or rotating machinery. Unlike batteries, however, fuel cells keep on producing power as long as their fuel and oxidant supplies are maintained. In addition, fuel cells produce electricity more cheaply and efficiently than conventional generators, and they emit less pollution.

FuelCell is talking with industrial equipment makers to form partnerships to build and market its stationary power plant, called the Direct FuelCell. Its current partners are a DaimlerChrysler unit in Germany and Mitsubishi in Japan.

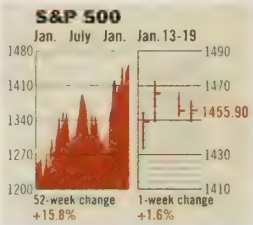


DFC plants are compact. A 250-kilowatt plant is the size of a tennis court, which could provide electric power to about 1,500 homes. "The DFC power plants are inherently more efficient than other fuel-cell systems," says Warren Bagatelle, managing director at Loeb Partners, which owns a 12% stake in FuelCell Energy. He says that a 250-kilowatt DFC plant operates at a 50% efficiency rate, vs. 30% from a traditional gas-turbine generator.

With the stock's sharp runup, has FuelCell become overvalued? Far from it, says John Adams, chairman and CEO of Boston investment firm Adams, Harkness & Hill. He says the fuel cell market is so huge—about $30 billion—that shares of FuelCell, with a market cap of just $200 million, appears very cheap. FuelCell posted a loss of $1 million on revenues of $20 million in 1999.

Figures of the Week

STOCKS



COMMENTARY

A generally upbeat week in the financial markets, which saw the Dow Jones industrial average and Nasdaq Composite Index both rising to new highs. Led by Microsoft, the Nasdaq index climbed to a record on Jan. 18. But the Dow, which had climbed to a record 11,723 on Jan. 14, fell in the two subsequent trading days. Bonds fell because of inflation fears.

Data: Bloomberg Financial Markets

U.S. MARKETS	Jan. 19	% change Week	Year to date	Last 12 months
Dow Jones Industrials	11,489.4	–0.2	–0.1	22.8
Nasdaq Composite	4151.3	5.9	2.0	72.4
Nasdaq 100	3790.9	7.0	2.2	86.4
S&P MidCap 400	452.0	3.4	1.6	17.2
S&P SmallCap 600	203.4	5.4	2.8	15.2
S&P SuperComposite 1500	306.9	1.5	–0.6	16.3
SECTORS				
S&P/BARRA Growth	875.7	0.9	–1.3	23.7
S&P/BARRA Value	607.7	1.5	–0.5	7.8
S&P Basic Materials	133.5	–4.5	–3.4	18.8
S&P Capital Goods	1081.7	–0.5	–2.6	24.7
S&P Energy	867.1	0.8	3.9	24.1
S&P Financials	128.3	2.8	–3.5	–2.0
S&P REIT	75.9	–0.4	3.2	–10.1
S&P Transportation	586.7	–4.3	–1.7	–13.1
S&P Utilities	238.6	2.1	5.0	–4.9
GSTI Internet	694.8	1.8	–2.5	70.2
Morgan Stanley Cyclical	573.1	–2.2	–2.2	19.4
PSE Technology	1001.3	6.1	3.0	103.5

GLOBAL MARKETS	Jan. 19	% chan Week	Year t date
S&P Euro Plus	1507.2	1.4	–2.9
London (FT-SE 100)	6445.4	–1.3	–7.0
Frankfurt (DAX)	7091.0	2.6	1.9
Tokyo (NIKKEI 225)	18,897.8	1.2	–0.2
Hong Kong (Hang Seng)	15,275.3	–2.8	–9.9
Toronto (TSE 300)	8635.1	3.3	2.6
Mexico City (IPC)	7171.2	0.0	0.6

FUNDAMENTALS	Jan. 18	Week ago
S&P 500 Dividend Yield	1.16%	1.17%
S&P 500 P/E Ratio (Trailing 12 mos.)	32.1	31.9
S&P 500 P/E Ratio (Next 12 mos.)*	24.9	24.7
First Call Earnings Surprise*	7.21%	17.14%

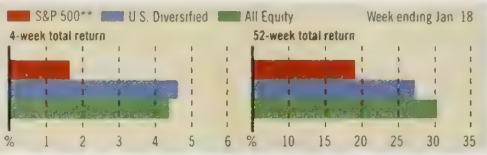
*First Call Corp.

TECHNICAL INDICATORS	Jan. 18	Week ago
S&P 500 200-day average	1353.9	1350.9
Stocks above 200-day average	30.0%	29.0%
Options: Put/call ratio	0.40	0.45
Insiders: Vickers Sell/buy ratio	0.67	0.68

BEST-PERFORMING GROUPS	Last month %		Last 12 months %
Instrumentation	53.1	Instrumentation	218.5
Health-Care Services	44.3	Health-Care Services	87.3
Oil-Well Equip. & Svcs.	26.4	Communications Equip.	78.2
Oil and Gas Drilling	24.0	Semiconductors	77.0
Entertainment	20.8	Metals	73.8

WORST-PERFORMING GROUPS	Last month %	
Conglomerates	–11.5	Pollution Control
Regional Telephone Cos.	–10.2	Tobacco
Furnishings & Appliances	–8.4	Office Equip. & Supplies
Savings & Loans	–8.1	Manufactured Housing
Long-Dist. Telephone Cos.	–6.6	Toys

MUTUAL FUNDS



Data: Morningstar, Inc. **Vanguard 500 Index fund

EQUITY FUND CATEGORIES

Leaders Four-week total return	%	Laggards Four-week total return	%
Health	18.6	Financial	–1.2
Diversified Emerging Mkts.	11.2	Precious Metals	–0.9
Natural Resources	9.4	Japan	0.2
Small Growth	9.0	Domestic Hybrid	1.5
Mid-cap Growth	8.6	International Hybrid	2.0

Leaders 52-week total return	%	Laggards 52-week total return	%
Technology	119.6	Financial	–4.9
Japan	101.0	Precious Metals	–2.0
Latin America	92.2	Real Estate	–1.6
Diversified Emerging Mkts.	87.1	Large Value	5.1
Diversified Pacific/Asia	84.8	Mid-cap Value	5.4

INTEREST RATES

KEY RATES	Jan. 19	Week ago	Year ago
MONEY MARKET FUNDS	5.37%	5.39%	4.69%
90-DAY TREASURY BILLS	5.50	5.43	4.37
1-YEAR TREASURY BILLS	6.09	6.12	4.51
10-YEAR TREASURY NOTES	6.73	6.70	4.75
30-YEAR TREASURY BONDS	6.72	6.71	5.17
30-YEAR FIXED MORTGAGE†	8.30	8.29	6.84

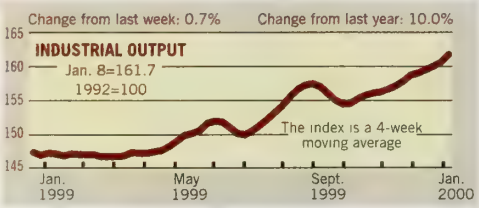
BLOOMBERG MUNI YIELD EQUIVAL

Taxable equivalent yields on AAA-rated, tax-ex municipal bonds, assuming a 31% federal ta

	10-yr. bond	30-y
GENERAL OBLIGATIONS	5.22%	5
TAXABLE EQUIVALENT	7.57	8
INSURED REVENUE BONDS	5.36	6
TAXABLE EQUIVALENT	7.77	9

†BanxQuote, Inc.

BW PRODUCTION INDEX



Information on each of the index components is at www.businessweek.com.
BW production index Copyright 2000 by The McGraw-Hill Companies

The production index was up in the w ed Jan. 8. The unaveraged index rose 163.8, from 162.7. After seasonal adju production of steel and coal increased ately. Because of revisions made to th al Reserve's industrial production d BUSINESS WEEK production index has figured for the last two years. The revis can be downloaded at www.businessw (or AOL keyword: BW) in the search & d area.

THE WEEK AHEAD

EXISTING HOME SALES *Tuesday, Jan. 25, 10 a.m. EST* ▶ Existing homes probably sold at a 5 million annual rate in December, says the median forecast of economists surveyed by Standard & Poor's MMS, a division of The McGraw-Hill Companies. Resales totaled 5.09 million in November.

CONSUMER CONFIDENCE *Tuesday, Jan. 25, 10 a.m. EST* ▶ The Conference Board's index of consumer confidence likely ticked up to 142.5 in January from 141.4 in December. With computers having weathered the date changeover, households may see few economic worries ahead. Because labor markets are so tight right now, economists will be interested to see if the percentage of consumers who think jobs are plentiful rose above its record 51.5% level in December.

EMPLOYMENT COST INDEX *Thursday, Jan. 27, 8:30 a.m. EST* ▶ The S&P MMS median forecast expects that salaries and benefits rose 0.9% in the fourth quarter, on top of a 0.8% advance in the third quarter. That would place yearly growth for compensation at a mild 3.2%.

DURABLE GOODS ORDERS *Thursday, Jan. 27, 8:30 a.m. EST* ▶ New orders for durable goods probably rose 0.5% in December after jumping 1.2% in November.

GROSS DOMESTIC PRODUCT *Friday, Jan. 2 8:30 a.m. EST* ▶ Real GDP grew at a 5% nual rate in the fourth quarter, according the median S&P MMS forecast. That follow blazing 5.7% advance in the third quarte Consumers continued to buy everything i sight, and inventory building also contributed to growth at yearend. The expect fourth-quarter growth rate would mean th the economy expanded 4.1% in 1999.

BusinessWeek ONLINE

For more investment data and the components of the production index, visit www.businessweek.com

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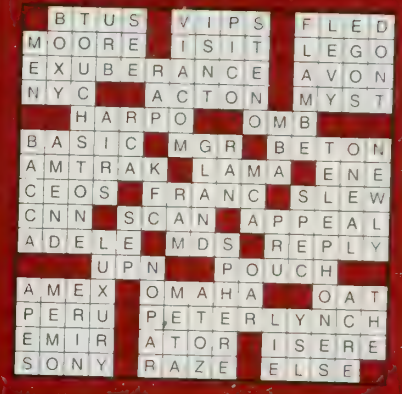

Answers from puzzle #24 in Business Week.

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GLOBALIZING THE NEW ECONOMY

There are many fallacies and only one essential truth about the New Economy. The first error is that the New Economy is nothing more than a stock market bubble destined to burst. The second is that the New Economy is nothing more than a temporary event caused by unexpected circumstances, such as the Asian financial crisis. The third error is that the New Economy is just a uniquely American experiment that cannot be replicated elsewhere. The truth is rather different. And it is incumbent on leaders in Europe, Asia, and America itself to grasp it as quickly as possible.

For the New Economy is really the latest iteration of a 400-year-old phenomenon: capitalism. And just as mercantilism and industrial capitalism have taken many forms as they have spread from country to country over the centuries, so too will the high-tech, global New Economy evolve and adapt to different countries and regions. In the sweep of history, it mattered little that mercantilism first developed in Holland and Northern Europe or that industrial capitalism first appeared in England. What appears today to be a distinctly "American" phenomenon will have its Continental version, its British variation, and probably several Asian interpretations.

The U.S. has set a new benchmark in capitalism by putting together a completely new combination of technological innovation, open markets, deregulation, and fiscal and monetary policies to create an economy that grows at 4% annually with little inflation and low unemployment. This doesn't mean America will never have another recession or that the stock market won't undergo a correction. The business cycle may be different, but it isn't dead. It does mean that the economy now has a higher speed limit than was once thought possible.

GREENSPAN'S VISION

How quickly countries adapt to this reality, what configurations their own New Economies take, and what role they will play in an integrated global New Economy will depend on policies taken by their economic and political elites. India, for example, could continue to be a supplier of software brainpower to America—with Bangalore tied to Silicon Valley—or it might become an Information Age giant in its own right.

If the history of capitalism teaches us anything, it's that nothing is predetermined. For all America's technological prowess, the New Economy might never have developed first in the U.S. had it not been for one man. Federal Reserve Chairman Alan Greenspan understood that a productivity revolution was under way in the 1990s and that this allowed much faster growth than traditional economic models said was possible without igniting inflation.

The Internet now makes technology and the latest business innovation instantly available to anyone, anywhere—almost instantaneously. It has the potential of leveling the global playing field by speeding the flow of information. Throughout Europe, small local economies are already springing up to take advantage of this information flow. Hundreds of new companies are listed on Frankfurt's hot Neuer Markt er exchanges specializing in fast-growing stocks ev Big corporations are restructuring, investing huge su crease productivity. The advent of the euro is unifyin markets and sparking a massive wave of mergers a sitions. And Europe's penchant for state directio advantages: By choosing a single standard, it ha ahead of the U.S. in digital wireless telecommunica

CHOICES FOR EUROPE

But this is not enough. Integrating isolated pocket technology so that Europe as a whole takes off will much of Continental Europe to end labor rigidities, migration laws, and anti-entrepreneurial policies. pean New Economy would stop so many of their b brightest from leaving for Silicon Valley, New York, a don. The European Central Bank, as well as the England, will have to change. Unlike the Fed, they mired in Old Economy thinking, too fearful that stro nomic growth inevitably leads to inflation. European bankers should be aware that it took years for offici government statistics to catch up with the surge in tivity occurring in the real economy. It may be that Eu government figures on productivity are also underesti a rise in productivity. So far, Britain appears to be cl fusing a New Economy mass. Some 10% of families shop on the Internet, and 40% regularly use it. Japan, taking to the Net with a vengeance: Practically every er carries a cell phone that connects to the Net.

Assuming that an American version of the New Ec will be transplanted to Europe and Asia is naive at b rogant at worst. Even the shape of America's New Ec is changing rapidly. The purchase of Old Economy me ant Time Warner Inc. by New Economy dynamo Ameri line Inc. may already be altering how Internet stocks a ued, how Net companies grow, and how the dual eco are integrated. No one can be certain of the evolutiona rection of this new economic force.

Indeed, much needs to be done to make sure the Economy becomes a global economy. The backlash a globalization so evident in Seattle could easily threat close off the flows of trade, capital, and people needed t ture high-tech growth. Or it could starve certain parts global economy and not others, skewing the spread New Economy.

As government officials and business leaders gath Davos, Switzerland, for their annual World Economi rum, the issue of what the New Economy means for p everywhere looms large. It would be wise for them to the fallacies and concentrate on a single truth: The Economy is highly adaptable and will take many form nations will be able to enjoy the benefits of fast growth world leaders must make the right decisions to get the

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Can private companies do a better job of educating America's kids?

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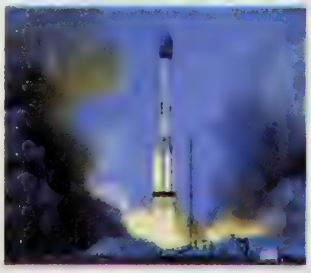
Up Front

EDITED BY ROBERT McNATT

RESCUE? *McCaw is back on radar*



TELECOM TALES

IRIDIUM ISN'T SPACE JUNK YET

IN A DRAMATIC REVERSAL, wireless pioneer Craig McCaw is returning to the negotiating table to cut a deal to buy the bankrupt satellite-telecommunications company Iridium. In December, the talks between Iridium and McCaw looked dead because he couldn't reach terms that made financial sense: Iridium has been generating only about $10 million in revenues while Motorola is supposed to be paid more than $400 million annually for maintaining and operating the system.

What has changed? According to sources close to McCaw, Motorola now is willing to slash its charges to $100 million per year for the work. Another scenario is that Motorola would run Iridium for nothing for a year or two, getting paid further down the road when Iridium is in the black.

Finding a solution is important because Motorola could face legal action from bondholders if Iridium goes down for good, since the company conceived of the system for global long-distance calling and helped raise the $5 billion to finance it.

How certain is a deal? A source close to the Seattle billionaire says that the chances of success are "about 75%." Motorola declined to comment. *Peter Elstrom*

THE LIST **IPOs FROM HELL**

What investor wouldn't like a hot initial public offering like VA Linux, 1999's star IPO, which rose 733% on its first day of trading? But not all IPOs shine. Of last year's five worst-performing offerings, two were in the financial sector—often considered old hat when compared with some of the go-go, but frequently profitless, Net stocks. Will history repeat this year? Look for IPOs from John Hancock and, later, Met Life to find out.

COMPANY	PRICE OFFERED	RECENT PRICE	% DROP
VALUE AMERICA Online retailer of tech equipment	$23	$5.25	–77.2%
INSURANCE MANAGEMENT Flood-insurance claims service	11	2.88	–73.9
PRISM FINANCIAL Retail mortgage banking	14	3.69	–73.7
STATIA TERMINALS Marine terminal facilities	20	6.50	–67.5
FASHIONMALL.COM Online clothing retailer	13	4.41	–66.1

DATA: RENAISSANCE CAPITAL

TALK SHOW "It's a long season. I've been knocked on t hardwood before."

—Ex-Knick Bill Bradley, on his loss in the Iowa Democratic Presidential caucus

SILICON SAGAS

THE NEW GEEK IN TOWN: GM

GENERAL MOTORS, A CLASSIC Rust Belt company, is seeking a California state of mind. Just weeks after announcing plans to open a design studio in North Hollywood, GM now wants office space in San Francisco for its online commerce unit, e-GM.

Mark Hogan, e-GM's president, says he wants the business near the pulse of Silicon Valley. In the past six months, GM has formed alliances with several Internet and software players, aggressively seeking to establish online relationships with vendors and dealers. Many of GM's new partners, such as B2B software concern Commerce One and Internet service provider NetZero, are in California. "You gotta be out there," says Hogan.

The California office start with 20 to 50 emp ees and could grow t many as 200 people, dep ing on business. GM Ch man John Smith Jr. says company's forthcoming Tr Xchange, an online p trading system, could alre

be worth billions. Ho adds that if GM can exp that business as plann TradeXchange could be world's largest B2B trad system, handling $500 bil worth of goods.

And there's nothing R Belt about that. *David W*

DEEP THINKERS

A FACT FACTORY FOR THE NEW ECONOMY

TWO BIG NAMES IN the practice of management, the Sloan School of Management at the Massachusetts Institute of Technology and consultant Arthur Andersen, are going into the think-tank business together. They'll be forming a research center in Cambridge, Mass., dubbed the New Economy Value Research Lab. Its purpose? To study and come up with hard, quantitative valuations of the intangible assets Wall Street finds increasingly important in the New Economy.

HIGH TECH: *All assets count*

Such assets as customer and supplier relationships, brands, and organizatio structures are usually fuzzy for economists to va But putting a number them, say the founders, crucial to all bu ness. "Even Coca-Colas and I neys of the wo are actually creat most of their va from assets t don't appear on th balance sheets," s Richard Boult Lab co-chair a managing partner Arthur Andersen Andersen v chip in $10 milli Sloan will prov the staff. But research wo be tilted toward Anderse customers, says Don Lessard, deputy dean Sloan. "We're in the busin of research and educati We're not in the business servicing clients." *Joan Ol*

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Up Front

SLUGFEST

THE LAWSUIT IN MARK CUBAN'S FACE

MARK CUBAN, COFOUNDER OF Broadcast.com, plans to pay up to $280 million in February for control of the long-suffering Dallas Mavericks of the NBA. He has the funds: Yahoo! bought his company last year for $5.7 billion. But if a small Dallas firm gets its way, Cuban may own the team with a partner he never counted on.

CUBAN: *Hoop dreams dashed?*

Privately held Universal Image, which provides online video services, is suing Yahoo and Cuban, among others, for $4 billion, in a trial slated to begin on Apr. 24. Universal alleges that Broadcast.com reneged on an agreement it had with Universal—before the Yahoo deal—to provide Universal with data about its registered users in exchange for technical services.

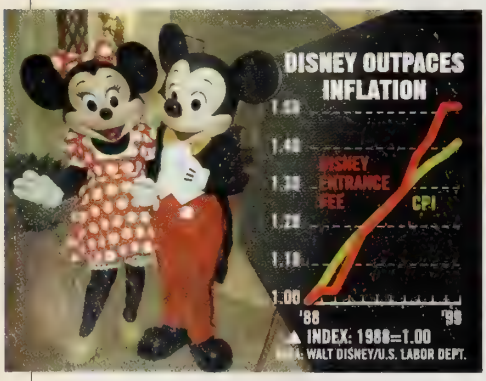
So in advance of the trial, an aggrieved Universal has asked Dallas County Court to place the equivalent of a lien on the team's purchase and other Cuban assets. Universal says it is entitled to a share of Cuban's sale proceeds—stock it estimates to be worth $6 billion. If Universal wins, it could become part owner of the team. Cuban's lawyer says the case is meritless. Yahoo declined to comment. And the Mavericks, spectators to this legal battle, remain stubbornly bad on defense.

Stephanie Anderson Forest

VACATION NATION

THE RISING COST OF RIDING TEACUPS

TICKET PRICES FOR WALT Disney World are going up again. In fact, during this economic expansion, its prices have managed to rise faster than the rate of inflation.



The new $2 hike in adult admission to Disney's four Orlando theme parks brings the cost of seeing Mickey and Minnie to $46 per day. (Kids pay $37.) It's the first increase since 1998, when tickets were 50% higher than 1988's $28 tab. Chalk it up, says Disney, to the opening of Animal Kingdom and other pricey new draws. "We have added more than five shows at the attractions," says spokesman Craig Dezern.

By contrast, from 1988 to 1999, the consumer price index rose only about 40%. Conventional wisdom says that in a booming economy, consumers will more easily tolerate higher prices for luxuries. The theme parks have been a bright spot for Disney recently, helping it achieve higher-than-expected earnings in the quarter ended Dec. 31. Remember, though: Disney's hikes haven't come close to those at colleges. In the 1990s, average annual tuition at four-year colleges rose from $5,494 to $9,536—a 74% rise.

Dennis Blank

DRAWN & QUARTERED

OVER THERE

OLD MASTERS ON THE PAYROLL

WITH UNEMPLOYMENT AT A breathtakingly low rate of 3%, the Dutch are worried that they are running out of workers to keep the economy humming. So the government has proposed tax reform that would make it harder to retire at 55—which some two-thirds of the Dutch now do with full pensions—thus keeping older employees on the job. Surprisingly, many Dutch workers like the idea.

Such a change would be a big about-face for the Netherlands. It also would buck the European trend of fighting unemployment by encour ing early retirement. Du employers know they need stanch the flow of good e ployees out of the workfor and so do labor unions. we can't get enough quali personnel, economic grov will slow, and that will bad," says Richard Gielen spokesman FNZ, the countr largest union.

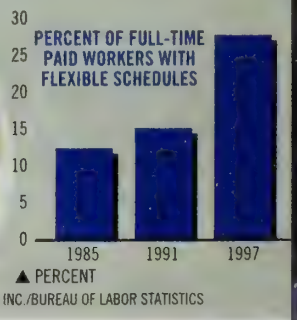
But unio want the cuts early-retireme benefits to phased in slov over the ne decade. And th oppose raisi the age of le retirement b yond 65, the current age. one, however, is consideri mass immigration; that is strategy seen as an u acceptable, American-st solution.

William Echiks

THE BIG PICTURE

WORKING ROUND THE CLOCK

Companies increasingly need employees able to work th flexible schedules associated with an Internet-related, nonstop economy. This trend toward more flex-time worke is expected to continue.



DATA: CHALLENGER, GRAY & CHRISTMAS INC./BUREAU OF LABOR STATISTICS

FOOTNOTES Holiday e-commerce shoppers who say they'll buy again online in 2000: **97%**; who'll make purchases over $200: **61%**

DATA: ACTIVE RESEAR

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PINOCHET SHOULD BE TRIED FOR HUMAN RIGHTS ABUSES

It apparently escaped Robert J. Barro's notice that the superiority of the free-market system rests on a democratic government ("One Pinochet legacy that deserves to live," Economic Viewpoint, Jan. 17). Over time, dictators of all stripes have attempted to justify their authoritarian rule on the pursuit of some general good. Yet free people know otherwise. General Pinochet chose to use or allow the state apparatus and other far-right elements to terrorize and abuse his opponents. It is fair that he be held accountable before a court of law.

George J. Papaioannou
New York

Professor Barro deserves an F in economics and political science for his criticism of Chile's decision to prosecute human-rights violations and to change its policy to reduce 11% unemployment.

Barro's understanding of the Chilean economy is questionable. Chile depends on exports of copper, wood, and other primary goods. Given the glut in those markets, Chile's economy is in trouble. The success of Pinochet's policies owed a great deal to favorable commodity markets. Neoliberal reforms of the 1970s and '80s also resulted in huge income inequality and hard times for the lower classes, flawed environmental policies, and too little public investment in e cation and human capital.

Unemployment is high, and times tough in the major Latin Ameri countries—particularly Argentina, Br and Ecuador; privatization and dep dence on fickle foreign capital, as a lution for these problems, are under tack elsewhere in South America.

Pinochet was a military oligarch w belongs in a courthouse being tried human-rights abuses. His economic le cy should also be severely scrutinize

John Ree
Arlington,

TAXING INTERNET SALES DOESN'T MAKE SENSE

"No Net taxes: A break for the w off" (News: Analysis & Commenta Jan. 17) should serve as a warning Internet entrepreneurs that Big Bu ness and Big Government are trying legislate away the pure competition t e-tailers represent. If a tax firewall erected, e-tail startups will find the co of compliance prohibitive. As noted "B2B: The hottest Net bet yet?" (Ne Analysis & Commentary, Jan. 17), t Internet can become the most power engine of deflation in the modern e but not if the only business models lowed to gain entry are those of alrea existing brick-and-mortar retailers.

While "mostly well-off people" m

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IRRECTIONS & CLARIFICATIONS

ots more money to count" (In Business s Week, Jan. 10) included some inac- racies. Microsoft Corp.'s revenue-recog- ion policy, begun by former Chief Finan- l Officer Mike Brown, recognizes a portion the revenues of some products in quar- ly increments over periods extending as g as three years. The accounting method required by generally accepted account- principles. Although Microsoft sets the centage and the time span, it does not er the recognition schedule once set. It not a rainy-day fund.

ntage year for wine Web sites" (Lifestyle, 1. 24) incorrectly said that WineShop- .com, among other online wine mer- ants, was getting local licenses to sell ducts. The San Francisco company says as not obtained these licenses, adding it "in many states, because of legal or ntractual constraints, [it] would not be e to operate lawfully or in accordance h its business plan if it had any such enses."

incorrect table accompanied "Burying hatchet buys a lot of drug research" ews: Analysis & Commentary, Jan. 31). e correct table follows:

BIG PILL TO SWALLOW

Top 10 Pharmaceuticals

PANY	2000 ESTIMATED SALES IN BILLIONS
GLAXO SMITHKLINE	$25.0
MERCK	20.0
PFIZER	16.9
BRISTOL-MYERS SQUIBB	16.5
ASTRAZENECA	16.4
AVENTIS	14.6
JOHNSON & JOHNSON	12.4
PHARMACIA & UPJOHN/MONSANTO	12.3
NOVARTIS	11.7
ROCHE	11.2

DATA: SG COWEN, MEHTA PARTNERS, MORGAN STANLEY DEAN WITTER

esent the majority of Internet users, user population will explode in the three to five years. Using today's ent population to justify tax moves could harm the less affluent masses generations to come is shortsighted. s an Internet e-tailer startup, I t our representatives in government resist the intense lobbying and keep Internet a tax-free zone where the ll-business person can compete in global arena.

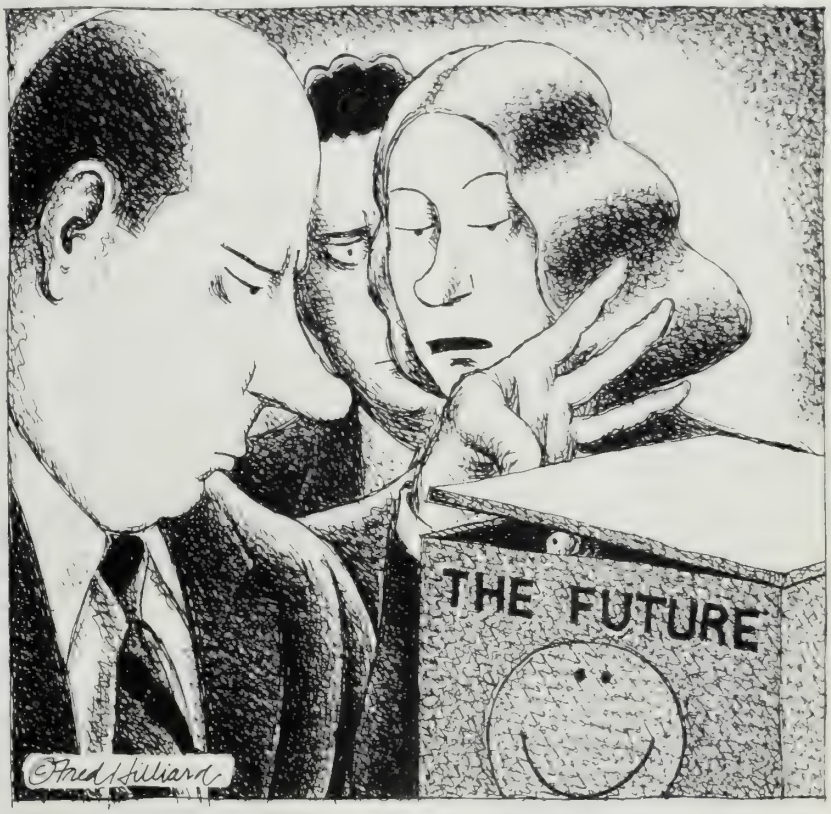
David S. Boyer
CEO
CheapShoe-Mart.com Inc.
Topeka, Kan.

Sales taxes are now collected only from companies with a major presence in a state. Regulation of interstate commerce is a reserved federal power.

Author Andy Reinhardt suggests that e-tailers will take sales away from brick-and-mortar stores and catalog merchandisers, and he uses data that seem to presume that all Net sales will be tax-free. That is not the case. Toys 'R' Us Inc., or a similar company with stores in Texas, would continue to have to collect state tax on its sales, even if the goods were bought over the Net. But purchases from Lands' End Inc. or other catalog merchandisers with no physical presence there would not be subject to Texas sales tax.

Estimating state tax losses based on Net sales alone is a stretch. Some states have "use" taxes, which may partially offset lost sales taxes, but they are generally only on large items, such as cars, that require state licensing.

The current tax structure has been in place for years. The founding fathers



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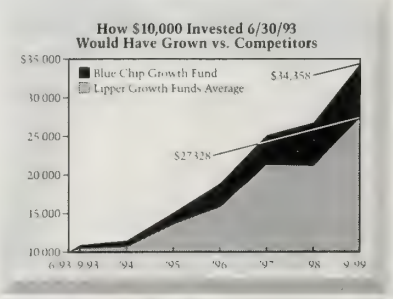

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Readers Report

had it right: Regulation of inters
commerce should be a reserved p
of the federal government. The st
may control activities that occur wi
their boundaries. This is not a soci
fairness question; it is simply an
tempted revenue grab by the state.

William L. Hug
Da

U.S. HAD EARLY KNOWLEDGE OF CHINA'S FAMINE

In "The top technological blunder
the (just past) century" (Up Front,
17), you include the Great Leap F
ward, China's botched technological
olution that caused the deaths of
wards of 30 million in 1958-62. This i
had particular significance for me, sin
was the first to attempt to alert Wa
ington to the famine. I did so as a
eign service officer in Hong Kong
1960 in a report entitled "Famine: G
specter over China." My report, p
pared for the U.S. Information Ager
was killed as soon as it reached Wa
ington; it was deemed irresponsible sp
ulation—there was no famine in Chi
It took more than 35 years for
famine to be acknowledged by our
telligence agencies.

Wes Peders
Public Affairs Cour
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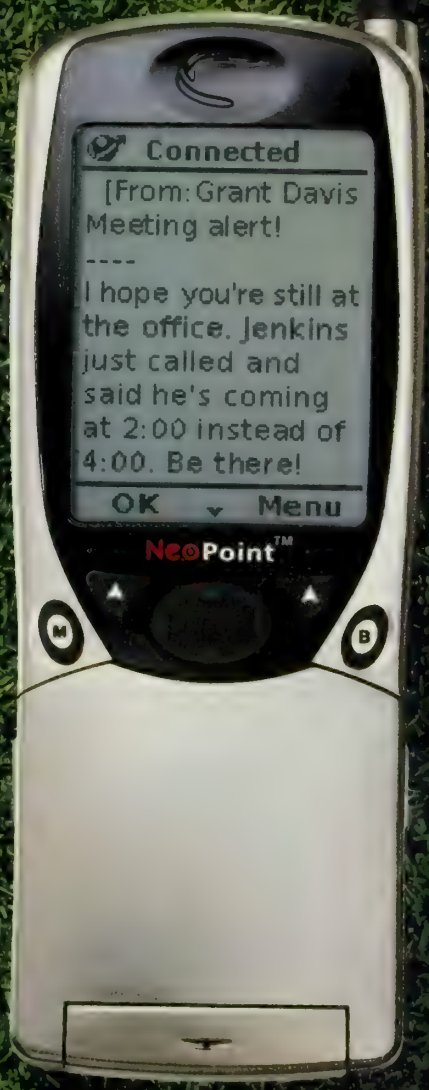

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work is what we do, not where we do it

JOE FORMICHELLI ON THE MOVE TO MOBILITY

Joseph C. Formichelli
Executive Vice-President
Toshiba America
Information Systems, Inc
Computer Systems Group

In an age in which technology companies are adding a veritable dictionary of new and exotic terms to the business lexicon, Toshiba American Information Systems, the world's number one notebook computer maker, is redefining something much more basic: the office.

"The whole world of work is changing as we enter the New Millennium," says Joseph C. Formichelli, Executive Vice President of Toshiba's Computer Systems Group. "The economy is operating on Internet time, 24x7, and the work force is becoming increasingly mobile. An office is no longer just four walls and a desk. It is wherever you—and your portable computer—happen to be."

AN INVESTMENT IN PEOPLE

Joe Formichelli should know. A 30-year computer industry veteran, he joined mobile computing leader Toshiba after managing IBM's successful ThinkPad program. Now, heading up Toshiba's Computer Systems Group, his mission is even more momentous: focusing on mobility and transforming Toshiba from the premier notebook vendor into a top-five PC manufacturer.

"Increasingly, companies will realize that purchasing notebook computers is more than an investment in business technology," he says. "It is an investment in people."

"Increasingly, companies will realize that purchasing notebook computers is more than an investment in technology, it is an investment in people."

He points to the experience of Toshiba customer Intel, the world's leading computer chip maker, which plans to convert four-fifths of its 50,000 desktop PC users to notebook computers by the end of this year. Even though Intel found that notebooks cost $800 more per year than their desktop counterparts, the company calculates that it will break even if its employees spend just 1.7 hours more per month using their notebooks than they would have their PCs—numbers

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the mobile century: work is what we do, not where we do it

a talk with Toshiba's Joe Formichelli; continued

that the company thinks it will quickly achieve.

"And that," adds Formichelli, "says nothing about the extra energy and enthusiasm that notebook-equipped workers are likely to bring to their job."

EMBRACING THE MOBILE WORKFORCE

Intel is hardly alone in making the move to mobile computing. Consider:

- At PricewaterhouseCoopers, the international consulting firm, more than half of the 160,000 employees use notebook computers.
- Over the last four years, the number of notebook computer users at McKesson HBOC, the Atlanta-based developer of health care applications, has climbed from a mere handful to more than half the work force.
- Prudential Insurance Co. of America is in the process of outfitting its 12,000 sales agents with notebook computers.

But perhaps the most startling statistic is this one: according to the Framingham, Mass based research group International Data Corp., in 1999 notebook computer sales is forecast to outpace desktop sales by .5% — probably the most vivid proof yet that the employee value generated by mobile computing is worth any added cost. Notebook sales are expected to maintain the lead in 2001 by at least 1%.

GETTING THINGS DONE

There are many ways in which mobile computing enhances employees' work life, explains Formichelli, but probably the most basic is that it allows people to do their jobs "anywhere, anytime, anyhow"—whether at the office, at home, or on the road. Not only does this increase the number of hours available for productive work, but it enables employees to better balance their lives—a key factor in employee satisfaction and success on the job.

Businesses benefit directly from the resulting flexibility. "Employee productivity in the United States in 1999 was at an all-time high," says Formichelli. "Successful companies are demonstrating that corporate achievement is no longer defined by the number of hours an employee spends at the office. It's simply about getting things done."

> *"Successful companies are demonstrating that corporate achievement is no longer defined by the number of hours an employee spends at the office. It's simply about getting things done."*

NEXT: JOE FORMICHELLI ON WORKING ON YOUR OWN TERMS

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E LAST GREAT REVOLUTION
moil and Transformation in Iran
Robin Wright
opf • 339pp • $27.50

S THE ISLAMIC REPUBLIC JNRAVELING?

These are exciting times in Iran. As the revolution enters its fourth decade, the Islamic regime under attack from without and within. n's youthful population is restive. A orm-minded President Mohammad atami is battling to make the sys- n more open and accountable.

So Robin Wright's *The Last Great volution* comes at a timely moment. ight, a writer for *The New Yorker* l other publications, is one of the re seasoned Western observers of n. She first visited that country in 3, when the Shah ruled and when American woman could wear a biki- in public. Since the Shah's 1979 fall, ight has returned again and again.

Her book is a welcome corrective to Western stereotype of Iran as a d of hell administered by black-robed llahs. Instead, today's Iran is a rich tural stew. Some of the arts, such as n and painting, are actually thriving. d although women remain second- ss citizens in terms of jobs and legal tus, they have made huge strides in ne areas, particularly education. Un- e most of the nearby Arab states, n enjoys a measure of democracy l has an influential Parliament. And mullahs, far from presenting a solid nt, are divided. Some bitterly oppose ving a state run by clerics.

Still, *The Last Great Revolution* is the clear, incisive book it might have n. For one thing, the author has two s that don't always mesh. She is fas- ated by the current rethinking of the nian revolution, and she has won- ful material on the crucial, at times dly, debate. But her central focus is netimes obscured by her human-tape- order approach. She wants to let anians speak for themselves about ir ideas, experiences, dreams, and strations." This can work well: A vis- o a government family-planning clinic produces a hilarious scene in which the director demonstrates the use of condoms on a model of an erect phallus to surprised couples—who, thanks to arranged marriages, barely know each other. But other sections bog down. Some of her description of Iran's cities and regions is eminently forgettable.

She is also weak on the economy, where mismanagement has done as much as anything to undermine support for the regime. Still, Wright does include some telling information: The Iranian riyal now trades at less than 1% of the value it held against the dollar at the time of the Shah's fall. Iran is one of the few places in the world where the price of a used car tends to rise because of the rapid depreciation of the currency. Iranians blame government corruption for their plummeting incomes. "You can't do anything without paying off this mullah's son or that mullah's brother-in-law," one shopkeeper tells her.

Wright excels at political reporting. Her section on Abdul Karim Soroush, the religious philosopher who is leading the intellectual attack on the clergy, is worth the price of admission. Wright seems to have become well-acquainted with Soroush, whom she compares to Martin Luther. Soroush first had great hopes for the revolution. He thought Islam would prove an indigenous and, therefore, legitimate vehicle for modernization in contrast to the pseudo-Western ideas of the Shah. "Islamic law is expandable," he tells Wright excitedly. "You can't imagine its flexibility."

But the mullahs' grab for power and their repressive tactics quickly soured Soroush. In 1991, he began openly challenging the regime, saying that the clergy were not holy or infallible and were wrong to use religion as a pretext to exercise power. Many of these autocrats were third-rate religious scholars, he asserted. He said the clergy should work for a living and challenged the authority of Ali Khamenei, the Supreme Leader who controls the armed forces and claims ultimate authority on matters of religion and law.

Such charges were intolerable to the ruling mullahs, reminding some of their minions of Ayatollah Khomeini's critiques that had brought down the Shah. Thugs calling themselves "the Helpers of the Party of God" disrupted Soroush's public lectures and beat him on several occasions. Fearing for his life, he left the country, returning after President Khatami's 1997 election.

As Wright points out, many Iranians, including members of the clergy, now share the views first articulated by Soroush. Khatami, too, mostly agrees with the radicals. His election revealed just how much resentment had built up against the mullahs. A dark-horse candidate given very little chance against the regime's choice, Parliament Speaker Ali Akbar Nateq-Nouri, Khatami received an astounding 70% of the vote.

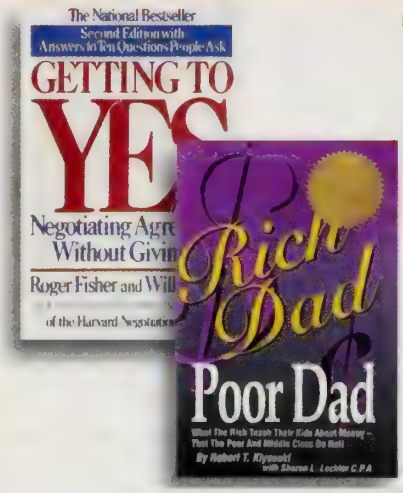
As Wright says, Khatami doesn't "deserve full credit for Iran's movement, since he didn't initiate the trend." Whether he will succeed is far from clear. Most of Khatami's reforms have been blocked by hard-liners. A crucial parliamentary election takes place on Feb. 18.

Whatever happens in the short term, Wright argues, "the Islamic republic is not likely to survive in its current form." The "turbaned classes," she argues, will have to share power with those who wear ties. Still, Wright says, the revolution will prove of enormous historical significance for the Islamic world. Is this correct? So far, Iran seems to have had little influence on its neighbors. That could change if it puts its house in order. Otherwise, the revolution's legacy could be a crippled economy and a chaotic, divided society.

BY STANLEY REED

London bureau chief Reed covers the Middle East for BUSINESS WEEK.

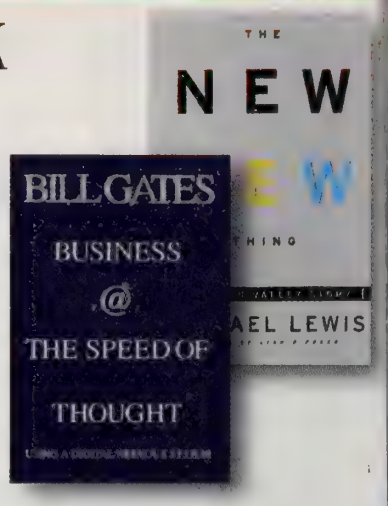
WRIGHT EXCELS AT LAYING OUT THE BATTLE BETWEEN IRAN'S REFORMERS AND THE MULLAHS



THE BUSINESS WEEK BEST-SELLERS OF 1999

BUSINESS WEEK's list of the best-selling business books of 1999 marks the maturation of a relatively new book genre: annals of the Digital Age. Books on Silicon Valley, Net commerce, and new technology all sold very well.

Management and leadership titles are also well-represented. And, of course, there's that staple of best-sellerdom—personal finance how-tos.



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3 **THE MOTLEY FOOL INVESTMENT GUIDE** by David and Tom Gardner (Fireside • $13) *The online duo puts it on paper.*

4 **RICH DAD, POOR DAD** by Robert T. Kiyosaki with Sharon L. Lechter, CPA (TechPress • $15.95) *Teaching your kids the rules of money by which the rich play.*

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ROLEX

BY STEPHEN H. WILDSTROM

LAPTOPS CATCH UP TO DESKTOPS

Intel is turning them into speed demons. Now how about boosting battery life?

For a couple of years, Intel and some computer makers have been trying to persuade businesses to abandon many of their desktop computers in favor of laptops that plug into docks that let you use a full-size keyboard and monitor. The idea of one computer for use in the office, at home, or on the road makes a lot of sense and has had some success. But two factors have discouraged wider adoption: Laptops still command a huge price premium, and even the most powerful notebooks fall far short of the best desktops in performance.

Cost remains a serious problem, one that has gotten worse in recent months as display prices have risen. But a new wave of laptops incorporating the latest technology from Intel has largely banished the performance gap.

DESIGN FEAT. The difficulty has always been that the fastest processors drain batteries quickly. The Pentium III SpeedStep processors finesse the problem by running at up to 650 MHz when connected to AC power, but slowing to 500 MHz and running at lower voltage on batteries. The result is a processor that approaches the 800 MHz of Intel's fastest desktop Pentium IIIs while giving acceptable battery life.

When Intel began discussing the technology, laptop makers were wary. Although throttling back the power would solve the battery problem, it would not reduce the amount of heat generated when the chip was working at full speed. Engineers pondered such exotic solutions as refrigerated docking stations. At best, they figured, the superfast chips would never work in the thin, light notebooks that were becoming the corporate standard.

A dual engineering triumph solved the problem. Intel made the chip run cooler. And designers found ingenious ways to exhaust heat from even tiny cases. The Hewlett-Packard OmniBook 900 is just the sort of notebook in which SpeedStep was not expected to work. It's 1.4 inches thick and weighs a mere 4.3 pounds. But not only did engineers manage to cram in a SpeedStep chip, but the OmniBook 900 actually runs cooler than most Pentium II or Celeron notebooks I have used. As long as you don't need to use the external drive (floppy, CD-ROM, or DVD) unit that attaches clumsily with a short, stiff cable, it's a laptop you can comfortably use on your lap. I got about 2½ hours of battery life on a charge, typical for a notebook in this class even with a slower chip.

It's worth asking who really needs a 650 MHz processor in a notebook—or a desktop, for that matter. In my typical mobile applications—Microsoft Word and PowerPoint, Web browsing, and reading e-mail—there were two ways I could tell I was running at high speed. First, a little flag icon in the system tray changes from solid blue to checkered. Second, a rather noisy fan came on more frequently to shoot a blast of hot air from a vent on the side of the unit. When a program su as Word loads in under f seconds at the "slow" spe it's hard to see meaning improvement at high spee

More demanding appli tions will show some diff ence. In Dragon Syster NaturallySpeaking, the O niBook did a better job keeping up with dictation the higher speed. And pe ple who manipulate large i ages in Adobe Photoshop other graphics-intensive pr grams will appreciate all t speed they can get. Users the new Windows 2000 ope ating system may also appr ciate the extra power.

DONE DEAL. In any eve new notebooks will give y that speed whether you wa it or not. Intel has discont ued desktop Pentium I and is phasing o the mobile versio It has also quietly r done the Celero originally a derivati of the Pentium II, that it now shares its d sign with the Pentium I

By the end of the ye Intel plans to offer ju two mobile chips. Th Celeron, probably at spee of 400 to 600 MHz, will b found in value notebooks, e pecially those costing und $2,000. The SpeedStep Pe tium III, with a top speed at least 800 MHz, will go in higher-end products. Mea while, Advanced Mic Devices will bid to b come a bigger player the mobile market wi a dual-speed version its K6-III-P chip late this year.

Personally, I woul love it if some of the e gineering genius devote to producing faster m chines without sacrificir battery life went int making slower notebook that run longer. Bu speed sells, and the pow er of these new note books should make th desktop-replacement ide a lot more attractive.

THE H-P OMNIBOOK 900

PROCESSOR	Pentium III SpeedStep 650/500 MHz
MEMORY	64 MB
HARD DRIVE	12 GB
DISPLAY	13-in. active matrix
WEIGHT	4.3 lb.
BATTERY LIFE	Up to 3 hr.
PRICE	$3,499

DATA: HEWLETT-PACKARD

QUESTIONS? COMMENTS? Send an e-mail to tech&you@businessweek.com

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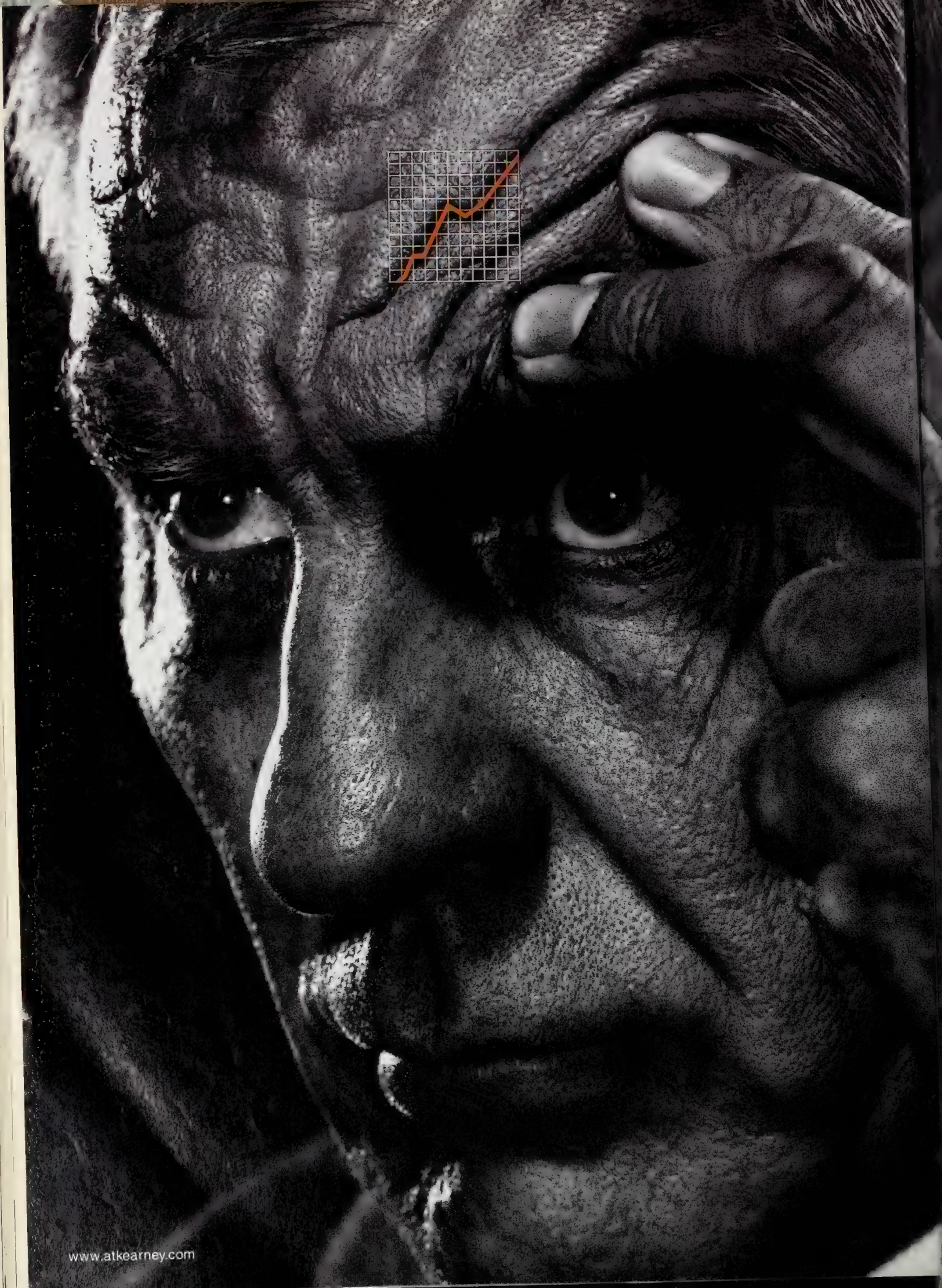
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BY LAURA D'ANDREA TYSON

WHAT REALLY SABOTAGED THE SEATTLE TRADE TALKS

TENSIONS: It wasn't the protests. If future talks are to succeed, the WTO must find a less cumbersome format and involve fewer participants

Laura D'Andrea Tyson is dean of the Haas School of Business at the University of California at Berkeley and was President Clinton's chief economic adviser.

The failure of the World Trade Organization meetings in Seattle has been interpreted by the opponents of globalization as a David-and-Goliath battle, with small nongovernmental organizations (NGOs) as the victorious David and huge multinational corporations and their government champions as the vanquished Goliath. This interpretation is wrong. The meetings broke down not because the opponents of globalization protested outside in the streets. The proponents themselves were unable to reach a compromise on a negotiating agenda within the allotted time.

Behind the meetings' collapse lie three causes: the immaturity of the WTO process; the large number of participants, many of whom were new to multilateral trade talks; and the complicated nature of the trade issues under discussion. The Clinton Administration, which proposed the Seattle round in the first place, underestimated the risk that the talks would fail. Then, the Administration further weakened the odds for success. It delayed compromises on U.S. antidumping laws and textile quotas in return for concessions on trade in agriculture and services from the developing countries. And it antagonized other nations by lobbying for a multilateral process to address labor issues despite nearly unanimous opposition.

NARROWER FOCUS? What are the lessons from the Seattle experience? Perhaps some cynics are right to conclude that it is foolhardy for the U.S. to host multilateral trade talks on the eve of a Presidential campaign. But there are more fundamental lessons as well. The easy issues in multilateral trade negotiations have largely been resolved. Tariffs have been slashed and quotas eliminated for most manufactured goods. Future negotiations will focus on agriculture and services, politically sensitive sectors.

More important, the global-round approach to trade talks, involving all WTO participants in a comprehensive agenda requiring bargains across several sectors, may have outlived its usefulness. Focused negotiations on trade issues in specific sectors among a smaller group of WTO members are a promising alternative. Such negotiations have produced significant agreements in information technology, telecommunications, and financial services. And the WTO's secretive ways of making decisions may be outmoded as well. To quell the growing backlash against globaliza and to build public trust, the WTO must be to make its operations more transparent.

In the end, new multilateral approac must be found to address concerns for the vironment, labor rights, and human rig Activists have focused their sights on WTO in part because there are no other m tilateral institutions for negotiating new ternational agreements on such issues. using the WTO for this purpose endang progress on trade liberalization.

NEW FORUM. In the environmental area, global community already has some expe ence with multilateral treaties, including Montreal Protocol on ozone depletion and more recent Kyoto agreement on glo warming. Moreover, the WTO charter rec nizes the need to protect the global envir ment and the right of nations to use tra sanctions to enforce international envir mental agreements. What the WTO does allow is a nation's use of trade restrictions enforce its own environmental laws wh they have selective and discriminatory effe against foreign producers. Hence the WTO r ings against the U.S. in the notorious tur dolphin and shrimp-turtle cases. It is time consider the formation of a new Global En ronmental Organization to establish the pri ciples, processes, and rules for new multila eral agreements.

The ground for such accords on labor sta dards is not nearly as fertile. Currently, on one labor standard, the prohibition again prison labor, is internationally recognized ar enforceable under the WTO. The developme of new standards under WTO auspices staunchly opposed by most members—f good reason. There is no evidence that trac liberalization encourages a "race to the bo tom" in labor standards. Indeed, the opp site is true.

Trade encourages economic developmen which in turn enhances labor standards. D spite such evidence, pressures from NGO and organized labor for international agre ments on basic labor standards will only g stronger as globalization intensifies. Ther is need for an alternative forum for this is sue. Otherwise, future trade talks could b derailed, and the biggest losers would b the very workers in whose name many the Seattle protesters marched in the firs place.

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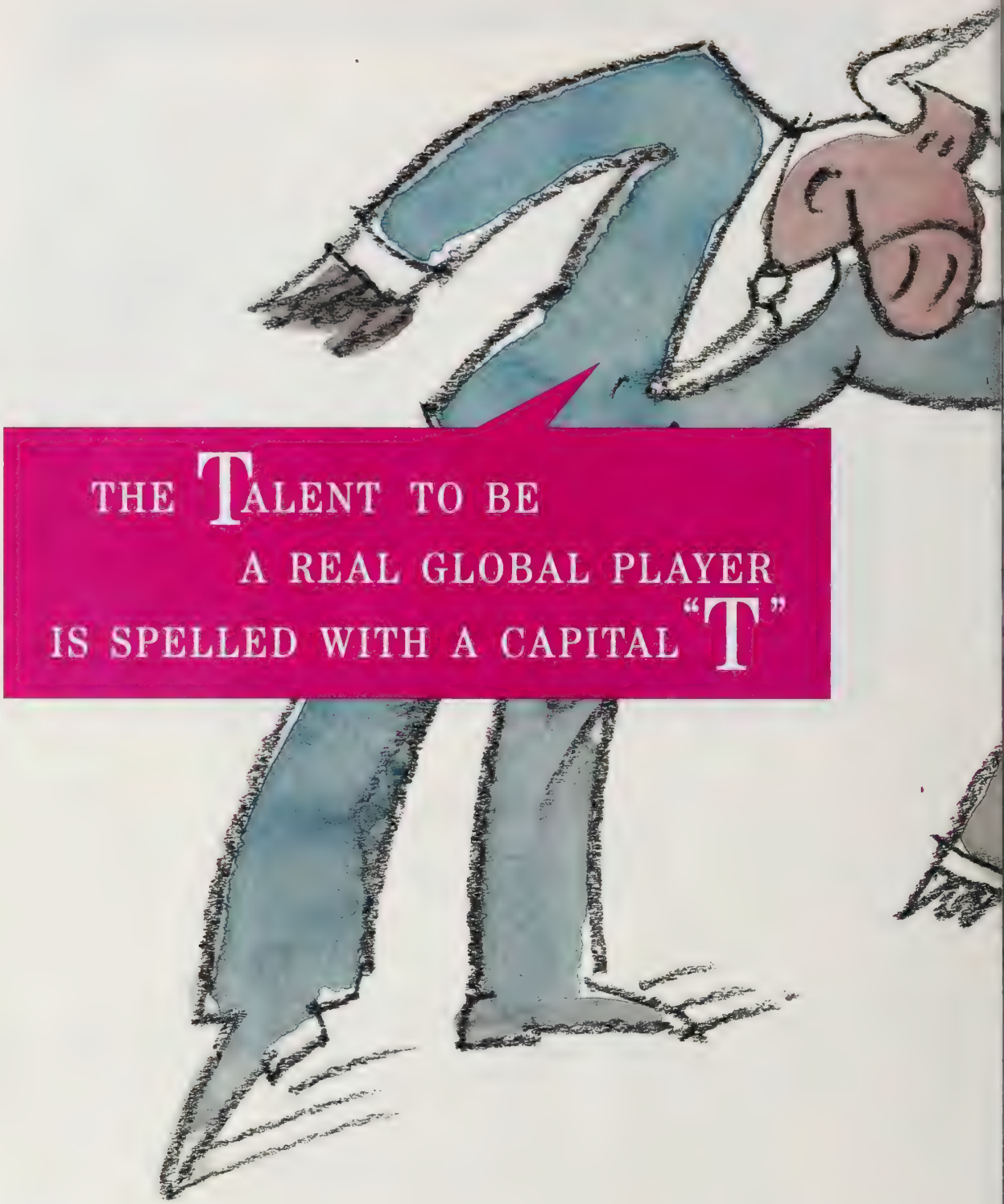
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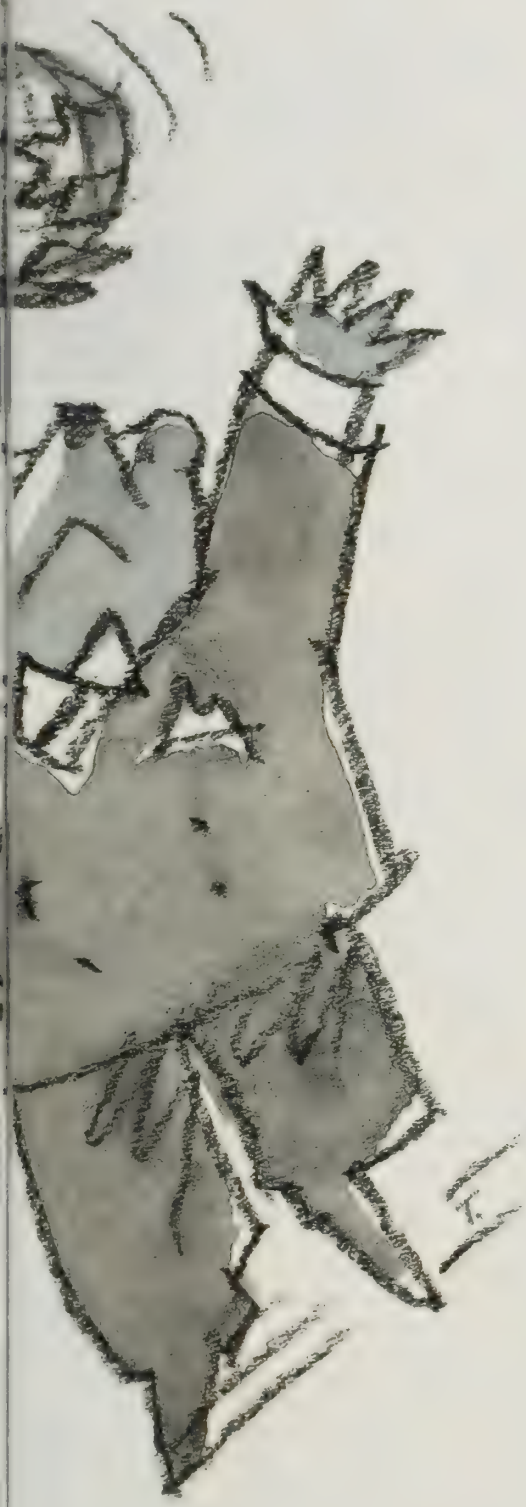
A REAL GLOBAL PLAYER
IS SPELLED WITH A CAPITAL "T"



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BY GENE KORETZ

WHERE VENTURE CAPITAL VENTURES

To just a few states–and industries

It's hardly a surprise that the U.S. economy and the nation's venture capitalists are both on a roll. For it is the latter group, lured by the specter of huge stock market gains, that has funded the new technologies that many experts think have led the economy into the promised land of strong, inflation-free growth.

What many people may not appreciate, however, notes economist Steven G. Cochrane of RFA/Dismal Sciences, an economics consultancy, is how concentrated venture investment is becoming. "California and the Northeast are benefiting enormously," he says, "while most other areas are being ignored." Similarly, knowledge-intensive industries are garnering the lion's share of funds, while other industries are left out in the cold.

LEADERS OF THE PACK IN ATTRACTING INVESTMENT

SHARES OF $61 BILLION IN U.S. VENTURE CAPITAL INVESTED FROM JAN. '95 TO SEPT. '99

CALIFORNIA	41.3%	COLORADO	3.2%
MASS.	10.8	NEW JERSEY	2.8
TEXAS	5.3	ILLINOIS	2.7
NEW YORK	4.1	VIRGINIA	2.5
WASHINGTON	3.4	FLORIDA	2.4

DATA: PRICEWATERHOUSECOOPERS

The investment pace is little short of breathtaking. PricewaterhouseCoopers reports that U.S. venture-capital firms shelled out a record $9.04 billion in 1999's third quarter, up 138% from the year-earlier level. That brought the nine-month total to $21 billion, 50% more than funds invested in all of 1998 and nearly four times the 1995 tally.

Unfortunately, many regions aren't sharing in the bonanza. At last count, only half the states had garnered more venture capital in 1999 than 1998, and six—California, Massachusetts, New York, Texas, Washington, and Colorado—were accounting for nearly 75% of the total, compared with just over half as recently as 1995.

Cochrane attributes the increasing regional focus to several factors. First, technology advances, as measured by new patent activity, are highly concentrated in the Northeast and West. Second, venture capital often comes from wealth created by earlier high-tech entrepreneurs. And these techie millionaires and billionaires tend to reside in such areas as Silicon Valley and Boston, and to favor investing in nearby companies, which they can readily monitor and advise.

Venturing's stress on cutting-edge technology is also enabling these regions to overcome a number of relative competitive disadvantages. While fast-growing areas, such as the Southeast and Mountain West, can offer businesses lower taxes and lower energy and housing costs, California and the Northeast can supply the skilled workers and research produced by their college and university systems.

Meanwhile, the industry focus of venture capital is becoming increasingly concentrated—as Internet-related companies claim an ever-larger piece of the investment pie. By late 1999, communications, software, and information-processing businesses were garnering nearly 60% of venture funding, up from 41% in 1995. At the same time, the shares going to health care and biotechnology have fallen sharply, from 12% and 8%, respectively, to 4% and 3%.

Can venture capital maintain its momentum? Continuing rapid technological advances and the buoyant stock market say yes. But Cochrane warns that a sustained stock market correction or the failure of current ventures to pay off (as the biotech industry found in the early 1990s) could quickly upset the apple cart. In that case, the regions and industries riding the current venture boom could face a rude awakening.

HIGH-TECH IPOs ROCKET ON

Guess which investors profit most

To appreciate what's sparking the current venture-capital boom, you might want to check the track record of initial public offerings, since IPOs are the way most venture capitalists cash in their chips. Stock analyst Steven G. DeSanctis of Prudential Securities Inc. recently ran the numbers for 1999.

Some 555 companies, almost half of which were technology-related, went public last year, raising a record $73.6 billion—nearly 50% more than the previous high set in 1996. For those investors fortunate enough to get in at the offer price, they produced some spectacular returns.

The average increase after the first day of trading was 64.4%, and the a preciation over three months was amazing 103.7%. Since a few huge gai tend to pull up the averages, a bett measure is the median increase, whi reflects the midpoint of the distributic For all IPOs, the median one-day a three-month gains last year were 30.4 and 25.9%, respectively. For technol gy IPOs, they were 63.1% and 116.3%

Investors who bought at the fir day's closing price didn't do nearly well. For all IPOs, the median increa three months after day one was roug ly 0%, which means that half of the i sues lost money. For technology IPC however, it was still a healthy 23.9%.

In sum, many small investors wl bought new technology issues soon aft they hit the market probably made son nice money last year. But as usual, it w the big investors, who generally ha first crack at IPOs, that really cashed i

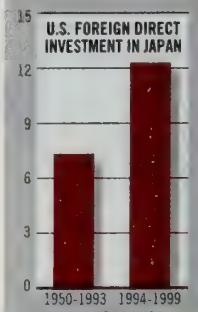
JAPAN: READY FOR REAL REFORM?

Rising U.S. investment is a catalys

Investors skeptical about Japan's cor mitment to economic reform and co cerned about that nation's outsize trac surplus with the U.S. should take no of its recent willingness to welcome fo eign direct investment, says economi Joseph P. Quinlan of Morgan Stanle Dean Witter Inc. Since the end of 199 he notes, U.S. companies have investe some $12.3 billion in Japan—68% mo than they did in the prior 44 years. Ar 72% of that inflow occurred in the pa two years.

With U.S. financial companies amor the largest recent investors in Japa Morgan Stanley thinks their influen can only enhance financial-sector refor under way, leading to major changes the real economy. The pickup in U.S. Japanese investment, says Quinlan, is tangible evidence of Japan's greater openness to trade and investment flows. It reaffirms "our belief that Japan is poised to emerge as one of the most promising global markets for U.S. goods and services."

U.S. COMPANIES ARE WELCOME



DATA: MORGAN STANLEY DEAN WITTE

JAMES C. COOPER & KATHLEEN MADIGAN

XPORTS REBOUND, BUT BARELY DENT HE TRADE DEFICIT

onsumer spending and rising oil prices keep imports surging

U.S. ECONOMY

Will the U.S. trade deficit finally begin to narrow in 2000? ter all, overseas economies are picking up smartly, d U.S. exports are already benefiting. But before you t too optimistic, consider this. The volume of U.S. imrts is 30% larger than its exports. That means exrts will have to grow 30% faster than imports just to ep the deficit from widening further.

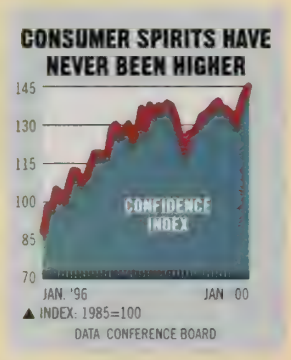
The record November trade gap made that point er so clearly. Exports of goods and services rose a althy 0.7% from October, but imports, up 1.4%, ineased twice as fast, widening the monthly deficit by arly a billion dollars, to $26.5 billion. In the most rent six months, exports have picked up sharply, growg 6.4% after declining during the previous half year, t imports are up 10.1% (chart).

For all of 1999, the deficit is on track to total an estimated record high of $258 billion, up from $164 billion in 1998. For 2000, expect a slower rate of deterioration, but a further widening nevertheless seems likely. Export growth is set to accelerate now that a global recovery is firmly in place. However, consider that imported goods now account for out one-third of all nonoil goods bought in the U.S. at means it would take a considerable slowdown in mestic demand to cut deeply into import growth. t there is little sign of that, especially from U.S. conmers, whose confidence soared to a record level in nuary.

ERE'S A DANGER: At some point, possibly this ar, the sustainability of the deficit—and the current vel of the dollar—are likely to come into question. ecifically, the global financial markets may question e ability of the U.S. to finance its resulting external bt with foreign capital, especially with the recovery the rest of the world offering increasingly attractive turns on investment relative to those in the U.S.

In the fourth quarter, the U.S. current-account deficit pears to have totaled a record 4% of gross domestic oduct. And it will go higher. The current account t only encompasses the export-import deficit, which ll be pushed up in 2000 partly by higher oil prices. It also includes the rapidly growing net interest payments that the U.S. must make on its growing external debt. Higher interest rates in the U.S. this year will only increase the financing burden.

The import flood is coming from all directions, and it's not just the result of higher oil prices. During the past year, foreign goods from all Pacific Rim countries, including China and Japan, are up sharply, accounting for a third of the increase in all imported goods.



Imports from the newly industrializing countries of the Pac Rim are up 20.6% in the past year. That's a rapid acceleration from this time last year, when imports from across the Pacific were falling, as the export machines of those countries sputtered after the Asian financial crisis. Another third of the past year's import growth has come from cross-border trade with Canada and Mexico, and another fourth comes from Western Europe.

Among categories of goods, imported oil accounted for less than a fourth of the U.S. bill for imported goods during the past year. However, the recent spike in oil prices will likely pump up the December and January import numbers, in part because a more normal winter in the U.S. is lifting energy demands.

Growth in consumer and capital goods will continue to lead import growth in 2000, especially since consumers remain on their spending spree. Indeed, the Conference Board's index of consumer confidence hit a record 144.7 in January, up three points from December (chart). Households gave high assessments of both present and expected economic conditions.

Buoyant job-market conditions, along with heady stock prices, are the key reason for consumers' optimism. The Conference Board said a record high 54.2% of households said that jobs were "plentiful," while a record low 11.3% said that jobs were "hard to get."

EXPORTS SEEM TO HAVE shaken off the stagnation brought about by the global financial chaos that started in Asia in 1997. Exports of goods and services have managed to rise in five out of the last six months. They hadn't strung together such a consistent up trend in two years. Even adjusting for price changes, mer-

chandise exports in November were up 8.5% from their year-ago level. The nation's purchasing managers report that export orders are back to their mid-1997 levels.

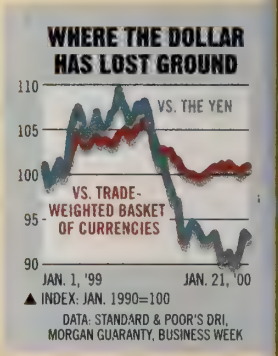
Two trends brighten the outlook for exports even further in 2000: the dollar's lower level and strong global growth. Since July, the dollar has fallen almost 5% against the currencies of the U.S.'s major trading partners and 14% against the Japanese yen alone (chart). The dollar's decline will make U.S. exports a little more price-competitive this year.

HOWEVER, THE GLOBAL PICKUP will play a greater role in boosting exports. That's not just because stronger overseas spending will increase demand for U.S. goods. It is also because, in order to compete in the new information marketplace, foreign companies will have to invest heavily in advanced technologies.

True, most computer accessories are produced outside of the U.S. But value-added products, such as software and Internet expertise, are still dominated by U.S. industry. Because such exports are harder to track than shipments of aircraft or machine tools, some of their growth may go unnoticed in the trade data. Look, instead, for these exports to contribute to corporate profit growth and the payroll numbers.

The global recovery will also help the often-overlooked export segment of services. Those exports, including transportation, business services, licensing fees, entertainment, and tourism, had been growing at a double-digit pace before the Asian crisis, only to falter in the face of overseas recessions. They started to recover at the end of 1998 and by November, 1999, they were growing at a respectable 5.2% yearly pace. As foreign economies pick up steam, growth for these exports should accelerate as well.

The optimistic outlook for high-tech and service exports does not mean that other industries will not benefit from stronger global growth. In fact, exports of industrial materials and consumer goods were the primary drivers of export growth in the second half of 1999. Since June, shipments of materials and nonauto consumer goods accounted for 63% of the total gain in merchandise exports, even though they account for only 35% of all shipments.



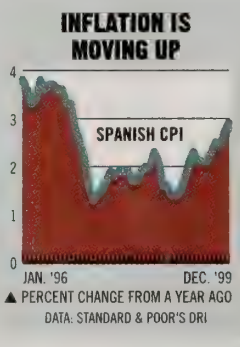
The world, however, is changing. And that means the future of U.S. exports lies in the goods and services where the U.S. has comparative advantage—that is, items that a nation can produce cheaper or better than anyone. And for 2000, at least, no one does the New Economy better than the U.S.

SPAIN

WANING WORRIES OVER INFLATION AND TRADE

Powered by strong growth in domestic demand, Spain's robust economy created two problems in 1999: It opened up a large trade deficit, and it helped to lift inflation well past the government's target. For 2000, growth is very likely to remain brawny, but both trade and inflation should improve.

Spain appears to have grown about 4% in 1999, and analysts expect a similar pace in 2000. Historically low interest rates are fueling consumer demand, especially for cars and other durable goods. Retail sales in November surged 7.6% from a year ago. In addition, capital spending is growing apace, and construction is booming. The resulting rapid job growth is generating solid gains in household income, sharply cutting Europe's highest jobless rate. The downside: December inflation jumped to 2.9% (chart), a three-year high that was double the 1998 rate and well above the government's original 1.8% target for 1999. For 2000, the overshoot automatically enters the wage structure of some 4.5 million union workers, on top of any new agreement.



However, November's 15.4% jobless rate continues to temper wage demands. Also, in reaction to the missed inflation mark, the government has cut regulated prices for energy, telephone, and transportation services, and opened up some utility markets to foreign competition. Most analysts believe that inflation will fall this year, and that the 2% government target for 2000 can be met.

The trade balance should also take a turn for the better. Last year's slump in Europe, the market for 70% of Spain's exports, combined with a flood of imports to cause a ballooning in Spain's trade deficit. For 2000, however, exports were already picking up sharply at the end of 1999. In November they grew some 20% from a year earlier, up from the August pace of about 3%. Improving trade is the chief reason why overall economic growth in 1999 likely exceeded the government's 3.7% forecast, and it is helping to put growth on a solid track for the coming year.

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A LITTLE NET MUSIC?

AOL and EMI hook up, and the Web looks like music's next leap forward

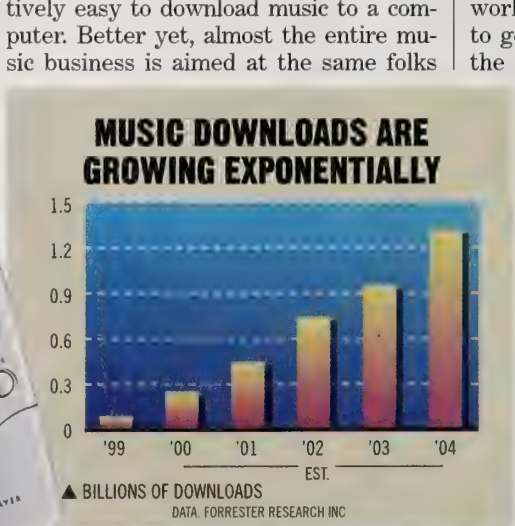
Since America Online Inc. and Time Warner Inc. announced plans to merge, both AOL Chief Executive Stephen M. Case and Time Warner Chairman Gerald M. Levin can't seem to say enough about the important role that digital music will play in the new behemoth's efforts to dominate New Media. "We have the opportunity to create a personal jukebox in the house and the car," Case told BUSINESS WEEK recently. "Ten to 20 years from now, we'll think it was a silly notion that music was so tethered to a physical disk." Levin adds simply: "This is the takeoff point for the music business."

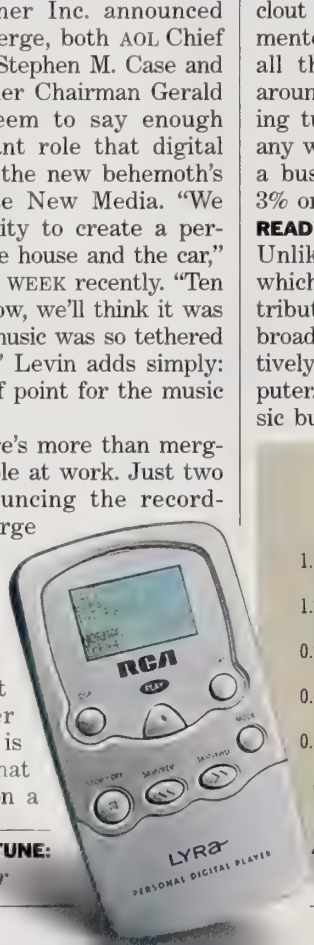
Apparently, there's more than merger-induced hyperbole at work. Just two weeks after announcing the record-setting deal to merge with AOL, Time Warner announced a $20 billion deal to take control of EMI Group, melding it with its Warner Music Group. EMI is the record label that first put Caruso on a platter, signed the Beatles, and is now home to such acts as the Spice Girls and Garth Brooks. Warner's list includes Madonna, Jewel, and R.E.M. The combination will give AOL Time Warner as much as 30% of the world record industry, compared with the 27% held by current No. 1, Universal Music Group, a unit of Seagram Co.

More important, it will give them the clout to impose order over the still-fragmented digital-music arena. Right now, all the music giants are scrambling around with alliances and tests for selling tunes online, anxious to figure out any way to expand sales and margins in a business growing at an uninspiring 3% or 4% a year.

READY TO GO. The timing looks good. Unlike movies and television shows, which can't really become widely distributed on the Web until high-speed broadband connections abound, it's relatively easy to download music to a computer. Better yet, almost the entire music business is aimed at the same folks who are leading the Web bandwagon: twenty-somethings and teenagers. If the AOL-Time Warner-EMI cabal plays its cards right, it could help return the industry to the go-go days of double-digit growth in the 1980 when consumers traded in their vin for CDs. "Just like the record indust got a shot in the arm when CDs car along, they'll get another shot in t arm with online music," predicts A President Robert Pittman.

But there are plenty of kinks to worked out—not the least of them h to get paid for music distributed acro the Web, how the business model w work, and whether the other m sic giants will play ball with A And getting to the digital doma from the world of physical dist bution could be an exceeding bumpy ride. Sales of download music over the Net are expect to grow to more than $1 billi by 2004. But that's only a fra tion of the $40 billion that t recorded-music industry racks u today. Translation: In their pursu of the new online market, labe won't be too aggressive. Sa Mike Farrace, vice-president marketing at Tower Records: "S much of the majors' business





DOWNLOAD THAT TUNE: *RCA's MP3 player*

ough traditional
nnels. They have no
ire to ruin that."

On the other hand, the big music
ups—Warner, EMI, Universal, Sony,
l Bertelsmann—can't cede cyberspace
pirate sites that distribute illegal
ies of their "content" and pay no
alties. If the industry can lead the
y in online sales, it can hope to ex-
nd its markets, not just risk canni-
izing sales through music stores. De-
te some investments in delivery
hnology, most labels have restricted
download business to promos and
gles for sale via the Web.

That could change now that the
gest Net company is also going to be
biggest music company. With 22 mil-
subscribers, there's plenty that AOL
bring to the download party. And Time Warner's 12 million-subscriber cable system is expected to provide a faster platform for downloading tunes. (A typical album could take several hours to download today using a 56-kilobit modem.) With that mass of potential customers, the new AOL Time Warner technology should clearly play a dominant role in the transition from CDs to downloading. AOL already owns leading online radio service Spinner.com and Winamp, a leading player for downloading MP3 files. "We're not looking to dictate, but to have some semblance of order in the market," says Roger Ames, Warner Music's chairman and CEO.

Certainly, there's plenty going on in the market that needs sorting out. GetMusic.com, a partnership between Bertelsmann and Seagram to promote and sell music online, has been slow in getting off the ground and may by doomed by "conflicting agendas," according to one executive close to Bertelsmann. Another partnership among Bertelsmann, Seagram, and AT&T to download music—code-named Nigel—bogged down after six months amid fights over technical snafus. Officials at both record labels claim they developed new download technologies from the project. But both companies have gone on to other partners. In one novel experiment on how the Web can be used to change the music biz, Universal is launching farmclub.com. The Web site will invite unknown acts to post their stuff with the hope of being selected to perform on a Friday night TV show on USA Network that could lead to a record deal.

By this summer, both Universal and Warner plan to begin selling music online—although both continue to wrestle with issues such as pricing. "If you charge too much, people aren't going to buy. And if you charge too little, it's hard to get prices up later when you need to," says Larry Kenswil, president of Universal eLabs.

Sony, with feet in the hardware and content areas, could also be a leader. It's planning to release portable Walkman-like devices called Memory Sticks that can store up to two hours of downloaded music. And to cover its bases, Sony, which is working closely with Microsoft on download technology, has investments in 17 Internet companies, including Launch Media Inc., over which the company last fall allowed consumers to download two tracks from Fiona Apple's latest album. Each of these moves is small potatoes compared to the wrenching changes the music giants will have to go through. "It is a leap of faith that music downloads are going to be a big business," says Al Smith, Sony's senior vice-president of music entertainment, "but it's one that we are all having to make." Time to jump.

By Ronald Grover and Steven V. Brull in Los Angeles and Richard Siklos in New York, with Catherine Yang in Washington

STRATEGIES

DOUG DAFT ISN'T SUGARCOATING THINGS

He's already shaking up Coke. But can he bring back the fizz?

DAFT

When Douglas N. Daft was hastily named by Coca-Cola Co. directors to succeed the embattled M. Douglas Ivester on Dec. 6, the betting among Coke watchers was that the veteran Asia chief would be a caretaker CEO. Given Ivester's unexpected resignation—and the lack of an obvious heir apparent—Daft was viewed by many as somebody who could keep the enterprise on course while the board groomed a longer-term successor.

Now, those bets are off. On Jan. 26—nearly three months before he officially takes over from Ivester—Daft showed insiders and, more importantly, investors that there is indeed a new regime in place. Daft announced the most sweeping shakeup in Coke's 114-year history, including the elimination of 6,000 jobs—about 20% of the company's 29,000-employee payroll. "The mood is pretty lousy, but this shakeup was long overdue," sighs one Coke middle manager whose job was eliminated.

Daft is also decentralizing management. To get closer to local markets, he is reassigning hundreds of headquarters staffers to far-flung outposts. And, rolling back the overambitious expansion plans of his predecessors, he is biting the bullet on poorly performing ventures in the Baltics and Japan—which will cost $813 million in write-downs.

OLD TEAM. More changes are on the way. By the time he is finished, Sanford C. Bernstein & Co. analyst William P. Pecoriello predicts, Daft "will make the most significant changes to Coke's business model and strategy since Roberto Goizueta" to the helm in the early 1980s.

What's the game plan? It looks mo like the book of Goizueta than that Ivester. Goizueta launched his tenu as CEO with a massive shakeup in 198 Now, Daft is bringing back some Goizueta's team, including his form executive assistant, and has even ini ated discussions with some of Goizueta outside advisers, such as New Yo public-relations exec Harold Burso who helped Goizueta burnish his pe sonal image.

Daft told staffers he's simply fo lowing Goizueta's example—th new CEOs should move fast and f cus on a "short and critical age da." And Daft isn't letting Iveste who is officially CEO a chairman until the April a nual meeting, get in the wa When Ivester continued i suing edicts after the Dec. announcement of his plan step down, Daft's staff sent curt message to the Ivest camp: Back off—the Do Daft era has begun.

IDLE PLANTS. Behind Daft sweeping moves is a tacit a knowledgement that Coke's glob buildup during the 1980s a 1990s—when the soda giant spe lavishly as it raced to establish ne markets in Russia, Eastern Europ and China—went too far, too fa Even in the U.S., where t average consumer alrea drinks more than 400 ser ings of Coke products ea year, Ivester kept pushi bottlers to spend on ne trucks, vending machines, a coolers so the stat could h 500 servings.

In Russia, two state-of-th art bottling plants—which t gether cost more than $1 million—sit idle, used largely a distribution war house; Daft is als writing down a po tion of Coke's 1 m lion vending machine in Japan. And even the U.S., some Coke's independen bottlers are ready pull back fro Ivester's push to p vending machines a coolers in unconve tional spots like aut parts stores. "We' made the investmen

y wanted, and we're still waiting for payoff," grouses one bottler.

'or his part, Daft now acknowledges Coke's long-held target of pumping 7% to 8% more volume each year is obably a little on the high side." By ing back the top-line target and re-ing capital spending, Daft figures e can actually produce more profits. rrill Lynch & Co. analyst Douglas Lane now believes Coke will boost earnings 11% this year but by near-30% in 2001.

Meanwhile, the new mantra at Coke o "think locally and act locally"—ner than await orders from Atlanta. e's local managers and bottlers will e more leeway to set pricing, tailor campaigns to local cultures, and even oduce new brands. "With the world nging more quickly than ever, we st move decision-making closer to local markets," says Daft.

Analysts also expect the company to y more heavily on growth beyond carbonated-beverage business. In U.S., which remains Coke's largest most profitable market, juice, tea, bottled water are growing from 5% 28% a year. Meanwhile, growth in soda market slipped last year from to roughly 2%, estimates Gary A. mphill, vice-president at Beverage rketing Corp. of New York. And e categories, such as diet cola, have ually shrunk.

MAND CHALLENGE. Daft knows first-d that Coke must seek solutions that y on more than carbonated water l sugar. In Japan, which produces % of Coke's profits, Daft generated -thirds of Coke's revenues from ned coffee and tea. And the new ke team is already signaling its desire gin up more profits from other bev-ges besides soda. Jack L. Stahl, who l serve as president, predicts Coke nagement will "draw more on the t practices of Japan."

Daft still faces a raft of challenges. must mollify regulators in Austria, y, and elsewhere who are waging an-ust probes that could restrict Coke's es practices. And despite his write-vns in Russia and Japan, analysts be-e Coke is still sitting on at least an litional $100 million in potential write-s in markets such as India and ezuela where it overinvested.

Restructuring is fine. But ultimately, ft will be judged on whether he can ate more demand for Coke prod-s—be they soda, water, or whatever sumers desire. Otherwise, like ster, he too may find that his term as goes flat.

By Dean Foust, with David Rocks, in anta, Manjeet Kripalani in Bombay, l bureau reports

TELECOMMUNICATIONS

SEEING CRACKS IN THE BABY BELLS

Cheap long distance and lots of new players may spell trouble

In rapid succession, on Jan. 24 and 25, Bell Atlantic, BellSouth, and SBC Communications reported fourth-quarter earnings that met or exceeded Wall Street's expectations. Net income in the fourth quarter edged up 8% for SBC, Bell Atlantic's jumped 12%, and BellSouth's soared 21% over 1998 levels.

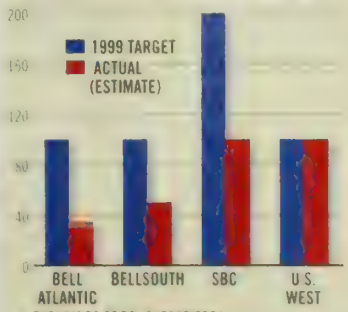
You'd never know it by looking at their stock prices, though. Bell Atlantic Corp. and BellSouth Corp. shares rose a sliver, and SBC Communications Inc.'s sank nearly 5%, to 39. But that's par for the course for Bell stocks lately. Since Dec. 1, SBC is down by over 22%, Bell Atlantic is off by 10%, and the Standard & Poor's Telephone Index, which is heavily weighted to these regional phone companies, has plummeted some 10%.

The problem: Investors don't know what to make of the Baby Bells' prospects in a rapidly changing telecom landscape. Not long ago, these companies seemed beautifully positioned in a deregulating U.S. market—poised to jump into the long-distance and data businesses with little threat to their residential local-calling markets. But just as Bell Atlantic becomes the first Bell to gain entry into the long-distance market, prices are plunging. Competition for customers in local markets is building—even before giant AT&T rolls out local-calling over its newly acquired cable network. And, in the race to sell high-speed data services, AT&T and other cable companies are also doing better than local phone companies.

All in all, there are too many questions hanging over the Baby Bells to let their stocks shine. "Uncertainty is the culprit," says Guy W. Woodlief, telecom analyst at Prudential Securities Inc. "Investors have taken a 'show me' attitude with the Bells."

The latest bad news for the group comes in the new broadband business. Three of four have missed their targets for signing up customers for digital subscriber line (DSL) service (table). The shortfall is particularly damaging to SBC, which has boasted that its $6 billion DSL project is the largest broadband rollout. Company officials still insist they will have 1

BELLS FALL SHORT IN DSL



million subscribers by the end of 2000, and the Texas-based Bell says it ended up delivering service to only 169,000 of the 200,000 customers it targeted in 1999. Still, says SBC CFO Donald E. Kiernan: "I predict we'll be No. 1 in terms of [broadband] market share by the end of 2000." Bell Atlantic was even less successful, reaching only one-third of its target.

The slow pace of the broadband buildup is troubling given the diminishing prospects for long distance. Since the Bells won the right to apply for entry into long distance in 1996—Bell Atlantic is operating in New York, and SBC is awaiting approval—the price of long-distance calling has plunged. In its latest earnings announcement, AT&T told analysts that its long-distance revenue fell 4.5% as it cut its quoted rates to as little as 7¢ a minute to keep up with the competition. It expects to cut thousands of jobs over the next several months in an effort to reduce costs.

Meanwhile, even as the rewards of long-distance fade, the giants of that industry are stepping up their plans to invade the Bells' local service territories. AT&T says it has signed up 150,000 customers for its combination of local and long-distance phone service in New York and that it will reach more than 700,000 by yearend.

THREATS. There's another new competitive threat, too: High-flying startups such as Level 3 Communications, Covad Communications, and Metromedia Fiber Network, which offer local service, usually to prized business customers. These companies, which are pushing triple-digit growth rates, command multiples far higher than those of the Bells.

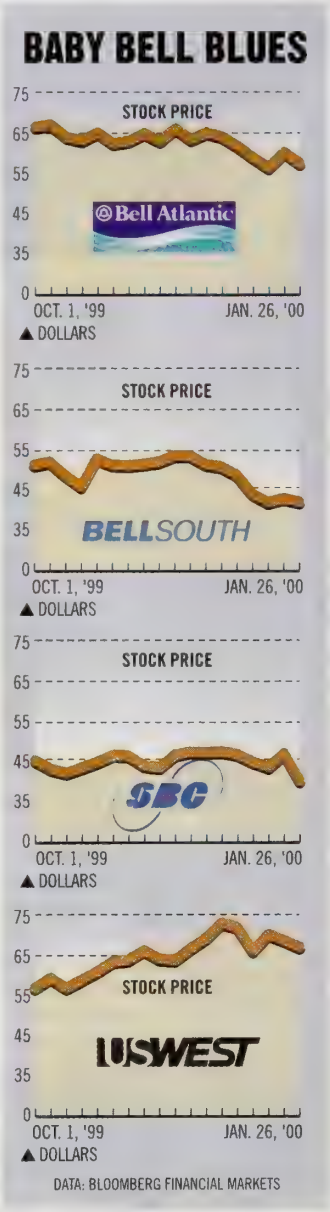
So investors have redone the math on the Baby Bells and come up with more modest growth numbers. Not only are long-distance prices falling and local competition up, but the transition into long distance will cut off a lucrative source of income from access charges—the fees Bells charge long-distance carriers to connect calls in the local market. "The amount of money the Bells give up in terms of lost access charges is more than they gain in long-distance prices," warns Bell bear David Jordan, investment manager for FNC Trust Group, an investment firm in Fort Collins, Colo.

On the other hand, long-distance remains a key element in the "bundle" of services that both the Bells and carriers such as MCI WorldCom and AT&T want to offer. The Bells and long-distance providers know that their historic lines of business aren't enough to generate market enthusiasm. So they're hoping to sell long distance, local calling, high-speed Net access, even cable TV.

Bell execs are laboring furiously to speed up growth and move into digital communications. Bell Atlantic, BellSouth, and SBC each churned out double-digit hikes in wireless and data-service revenue in the fourth quarter, with SBC's 44% data surge leading the pack. Like its cousins in the local business, says Kiernan, SBC is trying to remake itself into a "data-centric" company. So how long before it unleashes the kind of growth the market demands? "We're right on the edge of busting this out," Kiernan promises. "We don't have to wait long for substantial growth—we can see it coming now."

Still, it won't be easy. To excel in the market's eyes, the Bells might have to align with the new breed of telecoms. Already US West Inc. has sold itself to long- haul data operator Qwest Communications International Inc. The result: a $67 share price and a 13.5% return on equity since the merger announcement. Ultimately, "I don't think many of the Bells will thrive on their own," says Robert Fox, vice-president and telecom expert at strategy firm Mercer Management. And that may be the hardest pill to swallow.

By Roger O. Crockett in Chicago with Steve Rosenbush in New York



CORPORATE PROFITS

NOT TOO SHABBY

Never mind the previous qua
29% is still a nice rate of grov

	CURRENT QTR. SA (MILLIONS)
INDUSTRIALS	353,140.7
AIR PRODUCTS & CHEMICALS †	1,264.4
ALCOA	4,253.1
AMERICAN HOME PRODUCTS	3,467.3
ARCHER DANIELS MIDLAND ††	3,420.3
BOEING	15,200.0
BRISTOL-MYERS SQUIBB	5,408.0
CATERPILLAR	5,019.0
CHEVRON	10,611.0
COCA-COLA	4,931.0
CONAGRA ††	6,602.9
DELPHI AUTOMOTIVE SYSTEMS	7,250.0
DUPONT	7,140.0
EASTMAN KODAK	3,799.0
EXXON MOBIL	55,961.0
FORD MOTOR	44,418.0
GENERAL ELECTRIC	32,855.0
GENERAL MOTORS	46,262.0
HONEYWELL INTERNATIONAL	6,159.0
INTERNATIONAL PAPER	6,294.0
JOHNSON & JOHNSON	6,877.0
MERCK	8,963.4
MINNESOTA MINING & MFG.	4,023.0
NIKE ††	2,059.7
PFIZER	4,506.0
PHILIP MORRIS	15,558.0
PPG INDUSTRIES	2,053.0
PROCTER & GAMBLE ††	10,588.0
TEXACO	10,562.0
UNITED TECHNOLOGIES	6,517.0
USX-U.S. STEEL GROUP	1,462.0
WARNER-LAMBERT	3,534.6
WEYERHAEUSER	3,433.0
WHIRLPOOL	2,689.0
SERVICES	118,509.3
AMERICAN EXPRESS	5,699.0
AMR	4,487.0
BANK OF AMERICA	NA
BANK ONE	NA
BURLINGTON NORTHERN SANTA FE	2,370.0
CARDINAL HEALTH ††	7,399.5
CHASE MANHATTAN	NA
CIRCUIT CITY GROUP †††	2,495.6
CITIGROUP	20,951.0
DOW JONES	559.4
E*TRADE GROUP †	246.0
ENRON	10,973.0
FEDEX ††	4,570.1
GOLDMAN SACHS GROUP	6,712.0
GREAT ATLANTIC & PACIFIC TEA †††	2,332.1

ot a bad way to end the century. BUSINESS WEEK's flash report on a fourth-quarter survey of 90 corpo-ions shows an 11% gain in reported enue and a more than respectable % jump in profits. That's nearly half-in the 20% profits growth I/B/E/S pro-ts for the S&P 500. The gains, how-r, are magnified by comparison with rsized losses reported last year at npanies like Union Pacific, Texaco, evron, and Wells Fargo. For the fi-icial sector, including banks, brokers, and insurers, earnings bounced back sharply from last year's Asia-induced woes—to a collective 115% gain. Meanwhile, nonfinancial services were up 91%. Tech came out on the losing end, as good results from America Online and Motorola were offset by lackluster ones at IBM, Intel, and Xerox. But even if the current results are reduced after more companies report, we'll take 20% profit growth any time.

% CHG.	EST. EPS (11/18)	REPORTED EPS	DIFF.
+23	0.67	0.69	+0.02
+60	0.53	0.56*	+0.03
+53	0.79	0.89	+0.10
+70	0.45	0.45	—
–8	0.12	0.17	+0.05
+42	0.67	0.74	+0.07
+16	0.51	0.52	+0.01
–21	0.97	0.67	–0.30
NM	1.13	1.23	+0.10
NM	0.30	0.31*	+0.01
–14	0.51	0.39	–0.12
–10	0.45	0.48	+0.03
NM	0.55	0.55*	—
+75	1.26	1.50	+0.24
+66	0.79	0.65	–0.14
+73	1.43	1.47	+0.04
+16	0.91	0.93	+0.02
–32	1.81	1.86	+0.05
–99	0.73	0.78*	+0.05
+74	0.56	0.55*	–0.01
+639	0.57	0.53	–0.04
+12	0.66	0.66	—
+78	0.99	1.10	+0.11
+56	0.34	0.38	+0.04
+212	0.23	0.25	+0.02
+578	0.78	0.79	+0.01
0	0.91	0.92	+0.01
–1	0.88	0.78	–0.10
NM	0.87	0.67*	–0.20
–79	0.68	0.70*	+0.02
–55	0.40	0.35	–0.05
+40	0.51	0.55	+0.04
+480	0.92	0.78	–0.14
+36	1.46	1.51	+0.05
110	0.79	0.93	+0.14
+14	1.33	1.33	—
+27	0.93	1.37	+0.44
+64	1.25	1.10	–0.15
+82	0.80	0.78*	–0.02
+6	0.67	0.69	+0.02
+23	0.60	0.61	+0.01
+48	1.30	1.98	+0.68
+60	0.25	0.26	+0.01
+287	0.68	0.75	+0.07
NM	0.70	0.67	–0.03
NM	–0.22	–0.02	+0.20
+47	0.31	0.31	—
–6	0.54	0.57	+0.03
NM	1.03	1.48	+0.45
NM	0.40	0.56	+0.16

	CURRENT QTR. SALES (MILLIONS)	% CHG.	QTR. PROFITS (MILLIONS)	% CHG.	EST. EPS (11/18)	REPORTED EPS	DIFF.
McDONALD'S	3,372.9	+5	486.2	+40	0.36	0.35	–0.01
McGRAW-HILL	1,034.3	+10	120.8	+62	0.42	0.61	+0.19
MERRILL LYNCH	9,270.0	+18	764.0	+113	1.28	1.80	+0.52
MORGAN (J.P.)	NA	NA	509.0	+472	1.96	2.63	+0.67
MORGAN STANLEY DEAN WITTER	8,883.0	+17	1,633.0	+33	1.77	2.84	+1.07
SCHWAB (CHARLES)	1,352.2	+41	170.5	+60	0.16	0.20	+0.04
SEARS, ROEBUCK	12,504.0	+2	740.0	+38	1.48	1.98	+0.50
SUNTRUST BANKS	NA	NA	227.2	+44	1.05	0.71	–0.34
SUPERVALU †††	5,361.7	+31	58.7	+30	0.41	0.42	+0.01
U.S. BANCORP	NA	NA	369.0	+6	0.59	0.50	–0.09
UAL	4,481.0	+5	129.0	+139	1.68	0.84	–0.84
UNION PACIFIC	2,867.0	+7	242.0	NM	0.88	0.95	+0.07
USFREIGHTWAYS	588.4	+24	30.7	+52	0.96	1.11	+0.15
WELLS FARGO	NA	NA	970.0	NM	0.59	0.58	–0.01
TECHNOLOGY	81,231.1	+5	9,024.5	–4	0.41	0.44	+0.03
ADOBE SYSTEMS	281.8	+14	97.4	+94	0.42	0.46*	+0.04
ADVANCED MICRO DEVICES	968.7	+23	65.1	+192	–0.08	0.43	+0.51
AMERICA ONLINE ††	1,621.0	+41	271.0	+136	0.08	0.10	+0.02
APPLE COMPUTER †	2,343.0	+37	183.0	+20	0.89	1.03	+0.14
AT HOME	128.8	+569	–723.0	NM	0.00	0.00*	—
COMPAQ COMPUTER	10,478.0	–4	332.0	–56	0.16	0.19	+0.03
EMC	1,875.8	+21	206.6	–24	0.31	0.34*	+0.03
GENENTECH	338.1	+21	–172.9	NM	0.18	0.18*	—
IBM	24,182.0	–4	2,089.0	–11	1.06	1.12	+0.06
INTEL	8,212.0	+8	2,108.0	+2	0.63	0.61	–0.02
LEXMARK INTERNATIONAL GRP.	1,003.0	+11	99.7	+22	0.68	0.73	+0.05
MICROSOFT ††	6,112.0	+18	2,436.0	+23	0.42	0.44	+0.02
MOTOROLA	8,498.0	+2	349.0	+119	0.81	0.56	–0.25
ORACLE ††	2,321.9	+13	384.5	+40	0.11	0.13	+0.02
QUALCOMM †	1,120.1	+19	177.1	+265	0.24	0.23	–0.01
SUN MICROSYSTEMS ††	3,553.9	+27	353.4	+35	0.20	0.21	+0.01
TEXAS INSTRUMENTS	2,554.0	+26	430.0	+116	0.52	0.51	–0.01
XEROX	5,438.0	–6	294.0	–52	0.67	0.41	–0.26
YAHOO	201.1	+120	44.7	NM	0.15	0.15	—
UTILITIES & TELECOM	64,864.1	+10	7,528.4	+2	0.56	0.5	–0.04
AT&T	16,334.0	+21	1,153.0	–42	0.55	0.57*	+0.02
BELL ATLANTIC	8,608.0	+7	719.0	–32	0.77	0.77*	—
BELLSOUTH	6,681.0	+8	1,053.0	+5	0.52	0.55	+0.03
CONSOLIDATED EDISON	1,889.1	+17	125.0	–8	0.58	0.57	–0.01
EL PASO ENERGY	2,443.0	+19	–172.0	NM	0.55	0.48	–0.07
LUCENT TECHNOLOGIES †	9,905.0	+1	1,250.0	+1	0.55	0.38	–0.17
SBC COMMUNICATIONS	12,897.0	+6	3,106.0	+103	0.53	0.54*	+0.01
SOUTHERN	2,616.0	+3	128.5	NM	0.25	0.19	–0.06
US WEST	3,491.0	+9	166.0	–55	0.79	0.83*	+0.04

† First-quarter results
NM = not meaningful

†† Second-quarter results
NA = not available

††† Third-quarter results
*EPS adjusted for special items

DATA: COMPUSTAT PROVIDED BY STANDARD & POOR'S INSTITUTIONAL MARKET SERVICES
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THE ECONOMY

FROM GM TO CISCO IN JUST FOUR DECADES

Market-cap rankings tell the story of industrial evolution

Need proof that the New Economy is more than just a millennial buzzword? Take a good look at the top 25 companies ranked by market capitalization at the end of the '60s, '70s, '80s, and '90s. Anyone wondering what "creative destruction" is all about need look no further.

More than just a lesson in the rise and fall of some of Corporate America's biggest names, these rankings also give clues about social and economic changes. In the '60s, Avon Products Inc. was hot, tapping the spending potential of millions of housewives. So was Polaroid Corp., whose instant photography was a marvel of the time.

Fast forward a decade. IBM remained at the top, but Xerox Corp. was the only other '60s tech stock to hang in. By 1979, Big Oil ruled. Even oil serv companies Schlumberger Ltd. and H liburton Co. were in the top 25. By t end of the '80s, oil was out, and te nology—especially telecom—was risi

Now, no surprise, information techn ogy reigns. Microsoft Corp. is the wor most highly valued company. No. ranked America Online Inc.'s market c of $169 billion is more than quadru that of the '60s premier heavyweig IBM—unadjusted for inflation, of cour Six-year-old Yahoo! has made the list even as Old Economy icons General M tors Corp. and Ford Motor Co. fell c The only companies to remain amo the top 10 in all four decades: IBM, Exx General Electric Co., and AT&T. E where will they be in 2009?

By Tom Lowry in New Yo

THE TOP 25 U.S. COMPANIES BY MARKET VALUE

HIGH-TECH/TELECOM · PHARMACEUTICALS · NATURAL RESOURCES · CONSUMER PRODUCTS · FINANCE · RETAIL · MANUFACTURING · CHEMICALS

1969

RANK	COMPANY	MARKET VALUE BILLIONS
1	IBM	$41.5
2	AT&T	26.7
3	GENERAL MOTORS	19.8
4	EASTMAN KODAK	13.3
5	EXXON	13.3
6	SEARS, ROEBUCK	10.5
7	TEXACO	8.3
8	XEROX	8.2
9	GE	7.0
10	GULF OIL	6.4
11	3M	6.0
12	DUPONT	4.9
13	AVON PRODUCTS	4.9
14	COCA-COLA	4.7
15	MOBIL OIL	4.7
16	PROCTER & GAMBLE	4.5
17	CHEVRON	4.3
18	POLAROID	4.1
19	MERCK	4.1
20	ATLANTIC RICHFIELD	3.8
21	AMERICAN HOME PROD.	3.6
22	ITT	3.5
23	AMOCO	3.4
24	JOHNSON & JOHNSON	3.3
25	GTE	3.2

1979

RANK	COMPANY	MARKET VALUE BILLIONS
1	IBM	$37.6
2	AT&T	36.6
3	EXXON	24.2
4	GENERAL MOTORS	14.5
5	SCHLUMBERGER	11.9
6	AMOCO	11.8
7	MOBIL	11.7
8	GE	11.5
9	SOHIO	10.8
10	CHEVRON	9.6
11	ATLANTIC RICHFIELD	9.3
12	TEXACO	7.8
13	EASTMAN KODAK	7.8
14	PHILLIPS PETROLEUM	7.4
15	GULF OIL	6.8
16	PROCTER & GAMBLE	6.1
17	GETTY OIL	6.1
18	3M	5.9
19	DUPONT	5.8
20	DOW CHEMICAL	5.8
21	SEARS, ROEBUCK	5.7
22	MERCK	5.4
23	XEROX	5.2
24	CONOCO	5.1
25	HALLIBURTON	5.0

1989

RANK	COMPANY	MARKET VALUE BILLIONS
1	EXXON	$62.5
2	GE	58.4
3	IBM	54.1
4	AT&T	48.9
5	PHILIP MORRIS	38.7
6	MERCK	30.6
7	BRISTOL-MYERS SQUIBB	29.4
8	DUPONT	28.1
9	AMOCO	27.9
10	BELLSOUTH	27.9
11	COCA-COLA	26.0
12	GENERAL MOTORS	25.6
13	MOBIL	25.6
14	WAL-MART	25.4
15	PROCTER & GAMBLE	24.3
16	CHEVRON	24.1
17	GTE	23.1
18	BELL ATLANTIC	21.9
19	PACIFIC TELESIS	21.0
20	FORD MOTOR	20.6
21	JOHNSON & JOHNSON	19.8
22	DOW CHEMICAL	19.2
23	SBC COMMUNICATIONS	19.2
24	ELI LILLY	19.1
25	AMERITECH	18.4

1999

RANK	COMPANY	MARKET VALUE BILLIONS
1	MICROSOFT	$601.0
2	GE	507.2
3	CISCO	355.1
4	WAL-MART	307.9
5	EXXON MOBIL	278.7
6	INTEL	275.0
7	LUCENT	228.7
8	AT&T	226.7
9	IBM	196.6
10	CITIGROUP	187.5
11	AMERICA ONLINE	169.5
12	AIG	167.4
13	ORACLE	159.5
14	HOME DEPOT	158.2
15	MERCK	157.1
16	MCI WORLDCOM	149.3
17	PROCTER & GAMBLE	144.2
18	COCA-COLA	143.9
19	DELL COMPUTER	130.1
20	BRISTOL-MYERS SQUIBB	127.3
21	PFIZER	125.6
22	JOHNSON & JOHNSON	125.3
23	SUN MICROSYSTEMS	121.0
24	HEWLETT-PACKARD	115.9
25	YAHOO!	113.9

Note: Market Value is equal to yearend share price multiplied by shares outstanding.

DATA: FOR 1969, CRSP, CENTER FOR RESEARCH IN SECURITY PRICES, THE UNIVERSITY OF CHICAGO, GRADUATE SCHOOL OF BUSINESS. USED WITH PERMISSION. ALL RIGHTS RESERVED.
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COMMENTARY

By Joseph Weber

P&G'S COLD FEET MAY HAVE AVERTED A MISSTEP

Durk I. Jager, the Dutch-born exec who's trying to shake up stodgy Procter & Gamble Co., should be thankful that the 163-year-old packaged goods giant retains some of its knack for resisting change. When word leaked that the company was negotiating a merger with drugmakers American Home Products Corp. and Warner-Lambert Co., the chief executive quickly backtracked and scrubbed what he had said would be a "blockbuster combination of technology, marketing, and scale capabilities." His explanation: Secretive P&G didn't wish to negotiate its big plunge into the drug business in public.

Jager's Jan. 24 retreat may also have a lot to do with the 18.9% wallop that P&G shares took on the news. Whatever the reason, Jager did the right thing. True, P&G is a marketing powerhouse, albeit one that has lost a bit of its golden touch. And AHP and Warner-Lambert are certainly potent marketers in their own right. What's more, television, newspapers, and magazines are full of ads for prescription drugs—everything from Viagra to Zocor—enforcing the view that medicine has become just another consumer product to be sold like soap or diapers.

FLAWED PREMISE. That provided the basic premise of the combination—marrying two giant pharmaceutical makers to the marketing machine that brings the world Tide and Bounty to produce an unstoppable competitor. But the premise is flawed. The inherent differences between drugmakers and consumer-goods outfits are so striking that it's a wonder that P&G and its erstwhile paramours even bothered dating.

Start, for instance, with the science—how many versions of Pampers take 12 to 15 years and $500 million to develop? That's what it takes to move a drug from a lab-jockey's concept to the market nowadays. Not a lot of synergy there between the Cincinnati giant and the two New Jersey drugmakers.

And the skills that Procter has perfected to keep Crest a winner are not necessarily those that drugmakers lack. Indeed, in the few years during which they have been advertising prescription medicines, drugmakers have gotten pretty good at it. Just take a peek at those Claritin ads that have helped Schering-Plough keep its antihistamine on top. Says Ryan, Beck & Co. analyst Neil B. Sweig, "You'd be amazed at how much American Home and Warner-Lambert have learned about TV and media and advertising."

And once the message is put over to consumers, drugmakers still must sell doctors on their products. That requires a huge sales force of "detailers," many with pharmacology degrees or science backgrounds, who call on doctors and hospitals. Even the best P&G-trained marketers would need to be entirely reschooled to tote a bag into doctors' offices.

> The skills involved in keeping Tide on top won't help much in the drug business

Jager's impulse to do something dramatic to bolster P&G's efforts in pharmaceuticals is understandable. After nearly two decades in the business, its stable of 40 drugs generates just $700 million in annual sales—while a single blockbuster brings in $1 billion a year. Says A.T. Kearney Inc. health-care consultant Stephen S. Tang: "They've kind of dabbled in [prescription] drugs, but have never made a commitment to market leadership." If P&G is serious about growing its drug line, however, it should start out with some smaller acquisitions to gain experience.

COMMON MISSION. Companies that have succeeded in pharmaceuticals have tended to be tightly focused. Merck and Pfizer, the purest plays, don't do a lot beyond drugs. And more consumer-minded firms such as Johnson & Johnson and Bristol-Myers Squibb Co. dominate their fields because their managers have one common mission: health, whether it's baby powder or medical devices. "At some point, P&G would have had to make a strategic choice between being a health-focused company or a consumer-goods company," says Boston Consulting Group Inc. vice-president Jay A. Istvan.

Now that Jager has rethought his plunge into drug megadealing, he should heed his investors They would much prefer the other leaked news—of a possible bid for Gillette Co., whose consumer-products business would mesh nicely. In retrospect, P&G's dalliance with pharmaceuticals looks like a close shave.

Weber reports from Chicago.

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ONE OF THE 100 BEST COMPANIES TO WORK FOR

Capital One

COMMENTARY

By Lee Walczak and Richard S. Dunham

ZAGGING RIGHT: DID BUSH LOSE MORE THAN HE WON?

Propelled by a victory in Iowa's Jan. 24 caucuses, GOP front-runner George W. Bush is barreling toward new showdowns in New Hampshire (Feb. 1) and South Carolina (Feb. 19) against rival John McCain and an emboldened Steve Forbes. But Bush's first win, in a contest dominated by social conservatives, was not cost-free.

To cement 41% of the caucus vote, Bush felt compelled to woo the Religious Right. He played up his religious faith and, during a December debate is Des Moines, identified Jesus as his favorite political philosopher. Finally, with just days to go before the vote, on Jan. 20, he attacked the Supreme Court's 1973 landmark *Roe v. Wade* decision that legalized abortion. That could cost him with New Hampshire's big bloc of independents—and even more later on, in the general election, when he'll need support from suburban swing voters to win.

NO REPUDIATION. Facing a tough contest against McCain in New Hampshire, Bush wanted to score big in the campaign's first test. And to get the critical support of religious conservatives, he went to the person who knows how to land it: former Christian Coalition leader Ralph Reed. Now a freelance campaign consultant, Reed has become Bush's chief strategist on building alliances with conservative Christians. Working with Bush campaign guru Karl Rove, Reed has done valuable missionary work with fundamentalist groups that Bush needs in the primaries. According to recent polls, Bush has split the Religious Right, winning about 40% of self-identified conservative Christians nationwide.

"The strategy, first of all, was to see that the Pat Robertson vote splintered," Reed says. "We succeeded, because we got a plurality [in Iowa]. And we did it without being pushed as far to the right in our primary process as [Vice-President] Al Gore was pushed left on his side. Nothing that Bush said in Iowa will have to be repudiated later."

ON THE STUMP
Bush's religious overtures likely won't win votes in New Hampshire

ELECTION 2000
THE REPUBLICANS

That's the idea, at least. But even Republicans worry that their likely standard-bearer has gone too far, particularly on the abortion rights issue. Pollsters say most Americans favor keeping *Roe v. Wade*. "I think it's a political risk when you look at the opinion polls across the country," says Tom Coates, a Des Moines businessman and Bush backer. One top GOP operative puts it bluntly, calling Bush's abortion forays "the first strategic mistake" of the campaign.

Up to now, Bush's moderate tone has enabled him to narrow the "gender gap" with likely Democratic opponent Gore. But women's organizations, which have already voiced alarm over Bush's musings that *Roe v. Wade* was a "reach" and "overstepped constitutional bounds," aren't likely to dismiss the statements as simple election-year politicking. Nor will they overlook his Iowa pledge to uphold a tough anti-abortion plank in ther GOP platform. These statements didn't escape Democratic notice either: Within hours, a gleeful President Clinton congratulated the Republican for his candor in signaling his intention to overturn *Roe v. Wade*. McCain, too, seems to be seizing the opening, telling new Hampshire voters that while he is "pro-life" he believes that the party's language on abortion needs to be softened.

"GENUINE THING." Reed and Bush, however, were focused on the socially conservative voters that can swing early primaries. Both know that there is lingering suspicion among some Christian activists that, given the patrician, Episcopalian lineage of his father, oil-patch Methodist George W. might be a shaky convert to the cause of spiritual renewal.

To win over the doubters, Bush met with evangelical leaders and stressed his faith. He came up with a stump speech that artfully blended the confessional vocabulary of a born-again believer with appeals for tolerance and social activism. And he has been successful. "Bush has done pretty well without turning off other kinds of Republicans," says James Guth, an expert on the Religious Right who teaches at Furman University in Greenville, S.C. "Sometimes it's a little crudely stated, but evangelicals feel it's the genuine thing." That's true, even though Bush, unlike candidate Steve Forbes, won't promise to name an anti-abortion vice-president or right-to-life judges.

How does it all add up? Bush's strategy of melding the Religious Right into his base can yield tangible rewards in states with the right demographic profile. New Hampshire is far more secular, which explains why Bush is focusing on taxes and education there. As for those Iowa hymnals—Bush and Reed are betting that they'll be a distant memory come the general election. Is that a hope—or a prayer?

Walczak and Dunham are covering the 2000 Presidential race.

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THE INTERNET

CHANGING THE CYBER HOUSE RULES

No-fee Net access is making the old profit models obsolete

To hear Internet investor David S. Wetherell tell it, America Online Inc.'s decision to make a play for Time Warner Inc. was, at least in part, a way to evade a dire fate. With free Internet services cropping up—from companies in which his CMGI Inc. is a major backer, mind you—time is running out for conventional Internet service providers. "It's not clear to me that AOL would have been able to pull off the deal in six to eight months," he says. By then, "the cumulative effect of free access would have been so great, it might have been a drag on AOL's share value. AOL's timing was perfect."

By jumping more squarely into the content business, AOL won't have to rely on what Wetherell thinks is a losing game—charging a monthly fee for basic Net connections. Why? Because too many people are giving it away. One company in the CMGI portfolio, 1stUp.com, provides free access to two other CMGI holdings, Net portals AltaVista and Excite@Home, plus a slew of private labels, including Gay.com and Fox Entertainment Group Inc.'s thesimpsons.com. And new free ISPs—such as Spin Media Network Inc.'s array of private-label sites including Nettaxi.com, CollegeClub.com, and Kmart Corp.'s BlueLight.com—are cropping up almost every day.

CONTENT SEARCH. Like other free ISPs, 1stUp provides Internet access to consumers willing to submit personal demographic data and put up with extra advertising on every Web screen. So far, consumers seem to consider it an attractive deal. Free ISP NetZero Inc. just signed its three-millionth customer, making it the country's No. 2 service provider, and AltaVista registered 1.5 million users in just five months for its free Internet service. By contrast, AOL, the largest ISP, which charges about $22 a month, has 20 million subscribers. EarthLink Network Inc. and MindSpring Enterprises Inc., which are expected to merge on Feb. 4 and charge around $20 monthly, will only have about 2.5 million after consummating their deal.

All this freebie business could be bad news for such ISPs as EarthLink and MindSpring that are still charging for Internet access but lack the impressive content advantages of the AOL-Time Warner combination. A company can get away with charging $20 per month for service when users spend as much as 88% of their time at its sites, as is the case with AOL. Pay-I services may be forced to cut fees: T other route—adding content—wou take too long. Brags Ross B. Levi sohn, vice-president for new media AltaVista in Palo Alto, Calif.: "Fr ISPs are going to make the pay-I business obsolete."

The fee-charging Internet servic are not about to slink away quietl "Free ISPs haven't been a significa part of our churn," says EarthLi Chief Executive Charles G. Betty. contends that people sign up for fre bies as a backup service and that ma never actually use them. NetZero a mits that only half of its subscribe have logged on least once in t past month; at A taVista, the figu is 70%.

On the oth hand, of the cou try's 120 million pe ple with Internet a cess, only about 60 are active in a given month an way, according market research Net-Ratings In Unlike the ear free ISPs, which fi ured they could r place subscription revenues with a vertising and commission deals wit e-commerce partners, the newest e trants are offering Internet access as way to lure subscribers to their site It's simply a part of doing busines "It's probably the cheapest way to a quire new customers," says A taVista's Levinsohn.

Except for marketing costs, th is. Even a free service has to mak sure people know about it. And t free ISPs have been swarming t airwaves to put on the pressur After NetZero started a nation TV campaign as the halftime sponsc for the NBC's National Basketba Assn. games in December, Eart Link launched its first national a vertising, and Microsoft is promisin to spend more than $100 million o promotion when it rolls out a new ca paign this spring.

"It's all coming down to marketin and we can do that as well as anyone says NetZero CEO Mark R. Goldsto who used to head shoemaker L. A. Ge Inc. And let's face it, when the produ you're marketing is a commodity, free an awfully attractive price.

By Larry Armstrong in Los Angel

CHEAP COME-ON
For ISPs, free access is actually a low-cost way to lure customers

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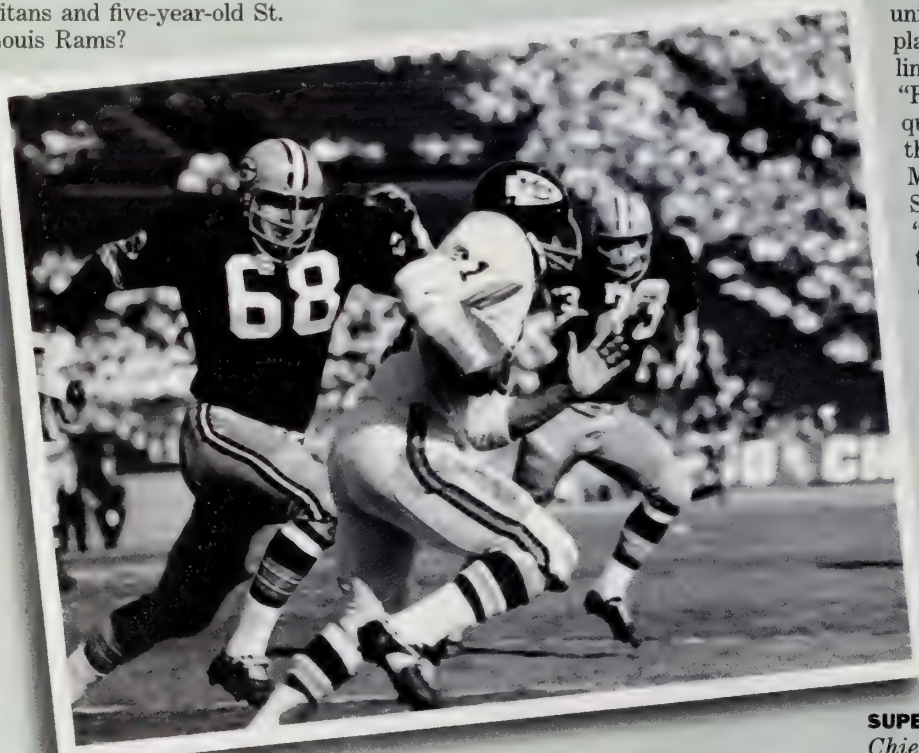
COMMENTARY

By Jay Weiner

SUPER SUNDAY, NOMADIC OWNERS, AND KARL MARX

Gaze into your mug of brew this Super Bowl Sunday and contemplate how much things have changed. Game XXXIV means that if you're 40, you can remember them all—from Max McGee to Joe Namath to missed Buffalo Bills field goals to the poetic justice of John Elway's late-career triumphs. And talk about change—whoever imagined a contest between the one-year-old Tennessee Titans and five-year-old St. Louis Rams?



You might also recall that 30-second TV commercials used to cost $42,000. Today, that pays for about a half-second of hype.

Has the big game become just an orgy of corporate grandstanding, now featuring crapshoot advertising by a dozen-odd dot.coms? Or is the Super Bowl a reflection of the fundamental business development of the National Football League since Vince Lombardi's Packers won that first AFL-NFL title in 1967.

On one hand, this year's game between a relocated team from Nashville and a relocated team from St. Louis might be better dubbed the Subsidy Bowl. The matchup represents the worst that the NFL has to offer: franchise free-agency—rootless teams with mixed-up surnames. When did Nashville become a big-league city, anyway? Weren't the Titans once in New York? And how many times have you said "St. Louis Cardinals" this week?

Super Bowl XXXIV is the epitome of pro sports reneging on their once-proud social compact for community-building. Just like that, Houston and Los Angeles lost teams because Nashville and St. Louis were willing to sell their civic souls. With each city paying more than $200 million in subsidies, we have nomadic owners such as Tennessee's Bud Adams and St. Louis' Georgia Frontiere succeeding on the strength of extravagant public spending.

On the other hand, the national chips-and-dip holiday highlights a relationship that many might wish for all our workplaces. Since settling their labor differences in court and in bargaining in 1993, the NFL owners and NFL players have shared their collective wealth more equitably: Players are guaranteed nearly 60% of the gross revenues that flow into league coffers. Meanwhile, owners' equity in franchises has been soaring like the Nasdaq on steroids.

Indeed, owners and players—the bosses and workers—are sharing their pot of gold so agreeably that even David Meggyesy, Western director of the NFL Players' Assn and the most radical theorist in the union, believes that the ideal of players owning teams and controlling a league is no longer relevant. "For years, we've discussed the question, 'What is the goal of the players association?'" says Meggyesy, a former player on the St. Louis (football) Cardinals. "The goal of the players association is to run pro football."

JOCK HEAVEN. All things considered, the players have reached that nirvana. With their so-called soft salary cap, which means signing bonuses are not counted on payrolls, the NFL players have been pocketing nearly 70% of most revenues. The right to free agency lets star players call the shots in a hot market for talent. The NFLPA even gets a look at financial records, so the employees know where all the employers' money goes.

SUPER BOWL I, *the Packers vs. the Chiefs, didn't even fill the stands*

"What we've accomplished is a model for other workers in this post-industrial age," says Meggyesy.

Certainly players don't control TV negotiations or the hiring and firing of coaches. And, of course, they don't snag equity when franchises are sold for hundreds of millions of dollars. "Maybe in our next contract, we'll get a piece of that franchise value increase," muses Meggyesy. Still, who needs to be an owner when helmets on, paychecks secured, workers—er, players—control the means of production?

Weiner writes about sports from Minneapolis.

I have never settled for better,
when best was within reach.
I have zero interest in okay.

I have never mistaken listening
for understanding.
I have frustrated cynics.

I have been difficult when necessary.
I have been easy when faced with perfection.
I have lit fires.

I work for J.P. Morgan.

JPMorgan

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DITED BY MARK FRANKEL

HRYSLER'S EATON AKES AN OFF-RAMP

AIMLERCHRYSLER CO-CHAIRan Robert Eaton is hitting e road. The chief executive ho signed the deal to merge merica's third-largest carker with Germany's Daimr Benz two years ago regned on Jan. 26. Eaton had dicated that he might stay r up to three years after e merger—a reassuring esture for Chrysler employes. But there have been inreasingly frequent reports friction between Eaton and is co-chairman, Jürgen chrempp, who has placed is own executives in most p jobs. Insiders say Eaton astened his departure with ose talk at the Detroit car how, where he told reorters that DaimlerChrysler ill shed non-core units such as rail division Adtranz and financial services division Debis. The disclosures did not sit well back in Germany.

SPRINT HANGS UP ON GLOBAL ONE

SPRINT FINALLY CUT ITS TIES with partners in the feuding Global One venture on Jan. 26. After months of searching for ways to pull out of the transatlantic partnership, Sprint agreed to sell its stake to Deutsche Telekom and France Télécom for more than $1.4 billion. The exit gives Sprint a leg up on its pending merger with MCI WorldCom. Were Sprint to remain a Global One partner, regulators would likely frown on the overlap in international capacity with MCI WorldCom, itself a robust international carrier. Sprint's Global One customers will be covered by a two-year transition plan. And the European companies—each of which holds a 10% stake in Sprint—will vote their shares in favor of the MCI deal if the merger is approved by regulators.

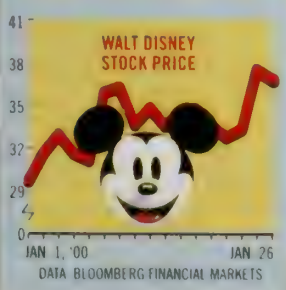
PRICELINE: BIDDING IN MANY TONGUES

NAME YOUR OWN PRICE—AND not just in dollars, but in marks or francs or yen. "We're ready to go international," says Priceline.com CEO and Chairman Rick Braddock who announced the Internet buying site's first venture outside the U.S. Priceline announced a partnership with Hong Kong's Hutchison Whampoa on Jan. 26. The licensing deal—which could expand to a 50% equity stake for priceline.com—will let people in Asia bid for airline tickets online. The site says it may top $1 billion in revenue this year—more than double 1999. No profits yet, Braddock says, "but we'll continue to narrow our losses."

CLOSING BELL

MAGIC KINGDOM

Investors are seeing a little pixie dust on Disney again. After two years of depressing news, on Jan. 24 the company promoted Robert Iger to president and chief operating officer, easing concerns. And it turned in stronger-than-expected first-quarter numbers. Disney shares jumped 12.6%, to 37½. Earnings were helped by ABC's *Who Wants to Be a Millionaire* game show and hot ad sales for its TV and cable operations. Disney closed at 36⅝ on Jan. 26.



HEADLINER: GAIL McGOVERN

LEADING FIDELITY'S ONLINE CHARGE

Fidelity Investments remains the biggest player in the mutual-fund business. But the goliath with $995 billion in assets has been unable to break away from the pack in the fast-growing online brokerage field. Look for that to change.

On Jan. 25, the Boston-based firm announced a major reshuffling of the top execs overseeing its push online. Gail McGovern, the former AT&T marketing exec who became Fidelity's senior operating officer for retail brokerage in late 1998, was named president of Personal Investments, which oversees Fidelity's brokerage and fund-marketing lines.

McGovern takes over just as Fidelity is picking up speed online. Last year, Fidelity put on a marketing blitz, funded in part by a $1 billion bond offering, and rose from an also-ran in online brokerage to No. 4 in market share. Now McGovern, 47, will have Fidelity's hottest job, outside of running a mutual fund, and become the company's top employee behind Chairman Ned Johnson and President James Curvey. "My job is to keep the momentum going," she says.

By Geoff Smith in Boston

CARLOS SLIM TAKES ONE MORE BITE

AFTER NIBBLING ON PIECES OF struggling CompUSA since last fall, on Jan. 24, Mexican billionaire Carlos Slim Helu decided he wanted it all. Mexico's richest man agreed to pay nearly $800 million for the 85.2% of the Dallas-based retailer that he did not already own—the first time a Mexican company will own a national U.S. chain. Slim's Grupo Sanborn's cash tender offer caps CompUSA's failed efforts over the past year to reinvent itself in the face of falling PC prices, fierce competition, and lots of red ink.

INTUIT AND AMD GET NEW CHIEFS

ROOM AT THE TOP? NEW LEADers are taking the stage at Intuit and Advanced Micro Devices. On Jan. 24, only three days after stepping down as a top exec at GE Capital, Stephen Bennett, 45, became CEO of Intuit, maker of the Quicken and TurboTax software packages. Bennett's big-money credentials should help Intuit drive further into online financial services. A day later, Intel rival AMD revealed its new No. 2 exec: Hector Ruiz, former head of Motorola's $7.3 billion semiconductor division. AMD has been looking for an heir to CEO and founder W.J. Sanders III since last July when S. Atiq Raza, then president, resigned.

ET CETERA . . .

- Qualcomm will acquire cell phone tech innovator SnapTrack for $1 billion in stock.
- On Feb. 1, GM's board will vote on spinning off Hughes Electronics.
- Ask and ye shall find: Ask Jeeves will buy Direct Hit Technologies for $507 million.

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ITED BY JOHN CAREY

UDDENLY, A HEALTHY SHOT T HEALTH-CARE REFORM

s 1999 drew to a close, health care was on life support. Congress was at an impasse over allowing patients to sue their health-maintenance organizations and reforming dicare. And while lawmakers in both parties deplored the ht of the 44 million uninsured, no one was doing anything ut it. Meanwhile, a Presidential election season was kick- into high gear, leaving Washington little time or political to tackle health care.

What a difference a month—and a flurry of public-opinion ing—can make. As Congress returned to k on Jan. 24, health care leaped to the top the agenda. House Majority Leader Dick ney (R-Tex.) is predicting that a patients'- ts measure will land on President Clin- 's desk by spring. House Republicans are nning to give prescription-drug benefits to -income seniors, and they promise to beef medical privacy protection. On Jan. 19, Clin- previewed a hallmark of his Jan. 27 State he Union Address: a massive $110 billion, year plan to expand health-care coverage the uninsured.

Vhy the sudden interest? One factor is the h visibility that Democratic Presidential didates Al Gore and Bill Bradley are giving issue. While voter unhappiness had been lding for years, Hill Republicans weren't rred to action until pollsters warned that y may pay a steep price come November. "Republicans are inning to recognize that they can't be silent on health e," says Scott Reed, chairman of the Republican Leader- Coalition, a group formed to woo minorities to the GOP. other reason: the hot economy. With a projected $1.9 tril- surplus over 10 years, pols are betting that generosity is uresfire way to win votes.

A Jan. 19 poll by the Kaiser Family Foundation and the vard School of Public Health found that 54% of voters want the government to spend part of the surplus on seniors' prescription drugs. The same percentage said Medicare was a top priority. "There's a resurgent interest in health," says Kaiser Foundation President Drew E. Altman.

Now, health-care companies, like some Republicans on the Hill, are backing off their hard line. The drug industry promises to work with Clinton on a prescription-drug benefit for seniors. And on Jan. 19, the Health Insurance Association of America (HIAA) resurrected the famous TV duo of Harry and Louise, who helped kill Clinton's 1992 health-care plan. Only this time, Harry and Louise are bemoaning the plight of the uninsured—in part to mute the call for HMO reform. "By 2001, it's a sure thing something will happen," predicts HIAA President Charles N. Kahn III.

ARMEY: *Studying the polls?*

FALLOUT CONTROL. Meanwhile, chief executives at 15 of the nation's largest managed-care outfits have been meeting regularly since last fall to explore ways to improve their companies' battered image. They are considering a $30 million to $40 million campaign that will paint a kinder, gentler insurance industry—and help limit fallout if a patients'-rights bill passes. "You need to have public approval and public trust," says Roger Bolton, a senior vice-president at Aetna Inc.

The first item on Congress' health-care agenda should be the patients' bill of rights. The sticking point—whether to let patients sue their HMOs—is likely to be resolved by allowing some access to federal courts for patients' grievances. And the Hill next may find a way to provide a limited Medicare drug benefit. While Clinton's proposal to provide coverage to the uninsured is the least likely to see action this year, who knows? Other health-care measures are making miraculous recoveries.

By Lorraine Woellert, with Phoebe Eliopoulos

CAPITAL WRAPUP

OME RULES

When the Occupational Safety & ealth Administration made plans to ply its regular workplace rules to -home workers, the outcry from usiness was so strong that Labor ecretary Alexis M. Herman with- ew the policy in early January. But e didn't go far enough for many in ongress. Representative Thomas . Davis (R-Va.) has begun a push r legislation that would prohibit the vernment from regulating home orkplaces.

DIGITAL SUMMIT

▶ In what is being billed as the first confab of its kind, U.S. governors are planning to meet on Feb. 29 with the Senate. The topic: Internet taxes and related federalism questions generated by the Digital Age. Sources say Senate Majority Leader Trent Lott (R-Miss.) and Minority Leader Thomas A. Daschle (D-S.D.) have agreed to the meeting. Governors and Congress are at odds over a wide range of regulatory and tax issues created by the rise of the Internet.

PHONE BREAK

▶ A telecom industry plan to cut costs is getting static from consumer advocates. The 1996 Telecom Act requires the FCC to lower so-called access charges. These fees, originally levied to subsidize rural service, are paid by long-distance carriers to local providers. The industry wants to replace the fees with a charge on local phone bills, but consumer advocates say the charge is too high. The FCC staff is likely to agree when it submits a proposal to the commission in February.

GERMANY

CAN BERTELSMANN TAKE WING?

It's off to a slow start in becoming an e-commerce giant

Bertelsmann CEO Thomas Middelhoff spends so much time yakking about the Internet that you might mistake him for Al Gore. But then, it takes a lot of talking to convince people you can turn a former publisher of religious pamphlets into the biggest e-commerce media company in the world. Middelhoff's ambition: to leverage Bertelsmann's vast store of books, magazines, music, and TV programming into big Net dollars through ventures such as bol.com, an online bookstore. The plan is working, insists the 46-year-old CEO. Already, Bertelsmann claims more online turnover than Yahoo! Inc.

But there's one element of this New Economy scenario that Bertelsmann is missing: publicly traded shares. While it's the world's fourth-largest media company in terms of sales—$14.9 billion last fiscal year ended June 30—privately held Bertelsmann's stock market value is a big fat zero. America Online Inc., a Bertelsmann partner, was able to use its soaring stock to buy Time Warner Inc., a Bertelsmann archrival. Company executives say they prize stability and independence over a volatile, if valuable, stock listing. That's why Bertelsmann rebuffed merger overtures from AOL, which could have paid in stock. AOL also would have certainly assigned the German company a subservient role.

HANDICAP. Since it doesn't trade publicly, Bertelsmann would have to pay real money to join the merger binge. That may explain why Middelhoff hasn't tried to outbid Time Warner for British recording giant EMI Group PLC, which creates a threatening rival to Bertelsmann's own BMG Entertainment. "Fundamentally, Bertelsmann's strategy is very good, but the absence of shares is a huge problem," says Robe Mutschler, a director of forit, a Germ Internet market-research firm.

Europe's e-commerce future hinges whether Middelhoff can overcome th handicap and keep Bertelsmann from b coming a minor player as rivals for megadeals. If Bertelsmann can make t transition, there's hope for Europe's ot er Old Economy giants. But the goi could be tough. AOL-Time Warner serv notice that a new kind of media compar one combining content and technolog could swiftly overwhelm the ol If Bertelsmann can't move fa enough, companies such as Y hoo! and Amazon.com Inc. w dominate e-commerce, whi hybrids such as AOL-Time Warn could threaten Bertelsmann's trad tional publishing and entertainme markets.

Bertelsmann already has lots catching up to do. For all the chatt about the Internet, multimedia still a counts for a mere 1.8% of sales. Ol fashioned books contributed 31%. Be telsmann earned $467 million in profi last fiscal year. At 3% of sales, th was slightly below its rivals: Tim Warner's profits were 3.6% of sale

MIDDELHOFF'S

AOL EUROPE

Bertelsmann's European joint vent with America Online has become unworkable since the Time Warner merger because the compa compete across a wid range of businesses. Bertelsmann needs online venue.

ILLUSTRATION, R. LOU BEACH; PHOTO OF MIDDELHOFF BY E.IPSA/CORBIS SIGMA

ile Walt Disney Co.'s were
%.

Recent weeks have brought ew setbacks for Bertelsmann. L Europe, Bertelsmann's joint nture with AOL, now looks unrkable since Time Warner is a ma- Bertelsmann competitor. Middelff quit the AOL board on Jan. 25 cause of conflicts of interest created the AOL-Time Warner merger. Most ely, Bertelsmann will sell its stake in L Europe in an initial public offering. at could raise as much as $7 billion t will take away Bertelsmann's stake in system that boasts 2.8 million Internet rfers. At the same time, Time Warner's anned merger with EMI thwarts Bersmann's plan to vault to first place in e music business. Bertelsmann has led out a counterbid.

AILING. Middelhoff is not beaten yet. rtelsmann's corporate treasure chest lds lots of the things Internet pundits e: brands, content, customer relationips. Its Gruner & Jahr publishing unit, example, boasts 170 million magazine d newspaper readers. Through Ranm House Inc. and other publishing bsidiaries, Bertelsmann sells 1 million oks a day. BMG Entertainment is the rld's fifth-largest record company. Bertelsmann is also partners in Europe's giant TV group, CLT-UFA, which has 22 stations in nine European countries.

The trick is to transform all those viewers and readers into e-commerce customers, by offering a wide range of products tailored to their interests. So far at least, Bertelsmann is sticking to selling media products—and trailing behind. Take its bol.com online book-and-music venture. After starting almost a year ago, bol.com now claims to sell 10,000 books and CDs a day in six European countries. But it's behind Amazon.com's European ventures in countries where they compete. Customer service is also weak. In a test by Forrester Research Inc., Bertelsmann took more than 24 hours to answer a customer's e-mail. That's no way to build loyalty. Bertelsmann doesn't stand a chance on the Internet until it uses its traditional businesses to offer services its competitors can't.

Middelhoff, to his credit, has stayed on message. He rarely makes a public appearance without mentioning the Internet. He was the one who linked Bertelsmann to AOL, in the first place, which helped propel him to the CEO's post. With his spectacles and goofy grin, Middelhoff even looks the part of a Silicon Valley nerd visionary. People who know him say he's persuasive. "He really motivates you," says Heinz Wermelinger, chief of bol.com.

Not everyone seems so charmed. It's clear that Middelhoff still faces major internal resistance as he tries to reorient Bertelsmann. That's one silver lining of the AOL-Time Warner deal. It sends a message to doubters that the Internet is revolutionizing the media business. "Those people who've looked strangely at Thomas Middelhoff and me now have to recognize that these [Internet ventures] are real, substantial companies," says Klaus Eierhoff, a member of Bertelsmann's management board who is responsible for multimedia.

CABLE DEAL? Eierhoff, one of Middelhoff's closest advisers, insists that Bertelsmann won't be held back by its lack of share currency. Even a blockbuster merger is possible, Eierhoff says. "It depends on whether it's the right partner, the right timing." Analysts speculate that Bertelsmann could break new ground by joining with a major European bank to offer online banking, which could be used to draw customers to Bertelsmann's Web sites. Or Bertelsmann could invest in cable: Deutsche Telekom's cable network is for sale.

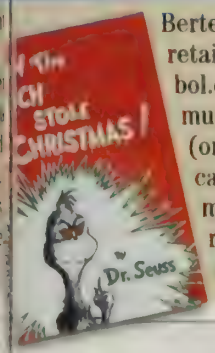
At least Bertelsmann doesn't have to worry about a hostile takeover. Ownership is firmly in the hands of the Bertelsmann Stiftung, a foundation. And Bertelsmann is creating some share capital by launching IPOs for selected business units. One example is Pixelpark, a Berlin Internet consulting company nurtured by Bertelsmann. The October IPO raised $59 million, and Bertelsmann's remaining 60% stake is worth $1.3 billion after the shares rose more than sixfold. Still, it's not enough to play in the major leagues.

An IPO of the parent company is technically possible, but unlikely. Traditionally, Bertelsmann has made employee and community welfare as important as profit, in line with the philosophy of company patriarch Reinhard Mohn. Shares could be used for takeovers, but they could also make Bertelsmann takeover bait. For now, Bertelsmann, with its headquarters in the pastoral North German town of Gutersloh, just doesn't look quite ready to plunge very far into the Internet economy.

By Jack Ewing in Frankfurt

HAKY STRATEGY

E-COMMERCE



Bertelsman's online retailers, such as bol.com (books and music) andsold.de (online auctions), came late to market, behind rivals such as Amazon.com.

MUSIC

Time Warner's purchase of record company EMI Group presents a formidable challenge to Bertelsmann's BMG, thwarting its aspiration to become the world's biggest music company. Without publicly traded stock, it's tough for Bertelsmann to keep pace in the mergers and acquisitions game.

MEXICO

MEXICO PULLS OFF ANOTHER TRADE COUP

The NAFTA-like pact with Europe will boost exports

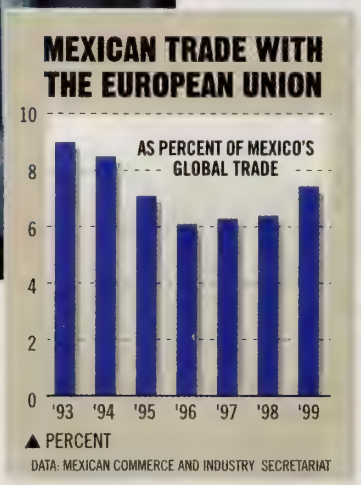
VW SUPPLIER: *By 2003, car sales to the EU will be duty-free*

If ever there was living proof that free trade can pay big dividends, Mexico is it. In 1993, before the North American Free Trade Agreement took effect, the country exported $52 billion a year. Six years later, exports total $137 billion. And a newly minted accord with the European Union should take that figure even higher, furthering Mexico's goal of turning itself into a manufacturing hub for the Americas. The agreement, negotiated last year, was delivered to the Mexican Senate on Jan. 24 for ratification.

It promises to be a boon for both sides. Under the deal, which could take effect as early as July 1, European exporters of everything from wine to mobile phones get preferential access to the Mexican market, comparable to that now enjoyed by the U.S. and Canada. And except for some agricultural products, Mexico will have ample access to the European market. In addition, Mexico stands to gain billions in new investment as European companies expand in the Americas, using Mexico as a base. "The agreement places Mexico in a privileged position," says Mexican Undersecretary of Commerce Luis de la Calle.

Indeed, Mexican officials are hoping for another NAFTA effect. Since that agreement came into force on Jan. 1, 1994, foreign direct investment into Mexico has soared to nearly $12 billion a year, double what it was before the accord. The jump reflects the influx of U.S. and Canadian companies eager to tap Mexico's cheap labor and proximity to the U.S. market.

The Mexico-EU deal will make it easier for European manufacturers to set up operations in Mexico. As long as they include specified amounts of Mexican labor and parts in their products, they will be able to export to the U.S. and Canada, back to Europe, or to other Latin countries with which Mexico also has free-trade agreements, such as Chile and Colombia. "Mexico opens doors for us to the north and south," says Mendel Goldstein, the EU's chief negotiator on the trade pact.



The rewards of freer trade would b felt as soon as the accord takes effec The EU has agreed to remove tarif immediately on almost all Mexican i dustrial goods and to eliminate the re by 2003. Mexico will automatically scra duties on nearly half of EU-made indus trial goods and lower tariffs on the r mainder to zero by 2007. For Mexic more trade with Europe allows it t curb its dependence on the U.S.—whic now absorbs 87% of Mexico's exports. contrast, exports to Europe amount t 7.6% of Mexico's total, down from mor than 10% before NAFTA (chart).

VROOM. The biggest winner in this de will be the auto and auto-parts indus tries. Mexico already exports more tha 1 million cars and trucks a year, mostl to the U.S. Under the new accord, Eu ropean carmakers with operations i Mexico will be able to export cars duty free back to Europe by 2003, so lon as 45% to 60% of vehicle content i made in Mexico. Volkswagen, whic makes the New Beetle solely in Mexic currently pays a 7% duty when it ship to Europe, but would no have to do that unde the new pact. VW wil have no problem meet ing local content require ments. It already ha persuaded dozens of it European suppliers t set up shop in Mexico.

Manufacturers of ap pliances will also se gains as EU tariffs o items such as TVs fal from 13.6% to zero with in three years. France's Moulinex is already bet ting on the pact. On Jan 25 the company an nounced that it would be centralizing production of irons at its plant in Celaya in central Mexico.

As more European investment flows into Mexico, companies may face some challenges, however. Some manufacturers in Monterrey and Saltillo already complain about spot shortages of qualified personnel, says Luis Rubio, head of Mexico City's Center for Research & Development. "The day is not far off when we will see serious shortages of skilled labor in Mexico," he warns.

For now, though, Mexican officials aren't looking that far ahead. Instead, they're getting ready to toast their latest trade coup. Tequila and champagne would be appropriate.

By Geri Smith, with Elisabeth Malkin, in Mexico City and William Echikson in Brussels

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SIGNING A PETITION: *The Net is effective with urban voters, key to elections*

SOUTH KOREA

WEAVING A WEB TO CATCH THE CORRUPT

Online activists could kick "unfit" politicians out of office

It was a declaration of war on politics as usual. In Seoul on Jan. 24, almost 500 civic groups ranging from environmentalists to shareholder activists pledged to oust South Korea's most corrupt politicians from the National Assembly by driving them to defeat in upcoming elections in April. The activists have posted the names of 67 "unfit" politicians on a widely read Internet site that is updated daily. In the coming months they plan to spread their message to every constituency and college campus around the country. The fierce protests—which are recruiting people in their 20s and 30s who account for more than half of Korean voters—are aimed at ensuring that dishonest politicians don't get reelected.

Call it the nation's first cyberspace revolt against corruption. With Internet use growing explosively in Korea, to 11 million, or about 24% of the population, the activists' online push has potentially greater effect than street demonstrations of old.

The activists, who include even a group of songwriters, are technically breaking six-year-old laws banning election activity by civic groups. But their zeal to unseat the unsavory has the support of four out of five Koreans polled. That means Korea's political parties can't afford to ignore them, and their campaign will play a large role in determining who will be on the ballot in April. "Korea's No. 1 vice is corruption," says Park Won Soon, the leader of the movement called Citizens Solidarity for General Elections. "Corrupt politicians are unable to present solutions, so they themselves are the target of reform."

WHY KOREAN ACTIVISTS ARE DISGRUNTLED

- Corrupt politicians continue to block economic and political reforms
- *Chaebol* abuses continue, doubling the number of irregular transactions in 1999 over the previous year
- Parliamentarians refuse to reduce their numbers, despite a promise to do so by 10%

DATA: BUSINESS WEEK

The Internet campaign does an end run around party bosses, who have traditionally chosen who will run for specific Assembly seats, often with little regard for ethics or popular opinion. But with the level of public awareness and concern growing, these elders are under pressure to drop questionable politicians.

No political party is spared. Among the targets so far are coalition partner and former Prim Minister Kim Jong Pil, o position elders, and the N tional Assembly speake The activists accuse the of either taking bribes, vi lating human rights, incompetence. While tw lawmakers have asked pro ecutors to press a libel cas and others deny any co ruption, many have kep silent. The pressure ha also forced the parties t back a bill lifting a ban o election-related activities b civic groups.

Decades-old habits won die quickly. Even in the new age democracy in Korea, what has mattere for politicians is not their honesty bu their district. In previous elections, as sociates of disgraced former strongme Chun Doo Hwan and Roh Tae Woo sti won parliamentary seats in their hom region of North Kyongsang, becaus voters resented prosecution of thei hometown heroes. Politicians targete now will play to local interests as wel

Yet urban voters, who hold the ke to electoral success, are paying mor attention to candidates' records. Seou residents are tracking the activists' site which gets 50,000 hits a day. Clearly these voters are fed up. Before Kin took over the presidency in 1998, hi party had supported tough legislatio echoing activists' demands to comba corruption. Yet two years later, the bil still has not passed. With lawmakers i both camps more interested in further ing their own interests, the *chaebol* re main unaccountable to shareholders.

STRONGER HAND. Last year, affiliates o the top five *chaebol* undertook $11 bil lion in irregular deals that shifted mon ey from profitable companies to weake ones, according to government statis tics. That's more than double the num ber of such transactions uncovered i 1998. On top of that, parliamentary lead ers agreed in January to change electio laws to make it harder to challenge il legal campaigning. That triggered a outcry and strengthened the activists hand. The changes were rescinded.

With such breaches of the public trus proliferating, no wonder voters want a shakeup of the leadership. As the reach of the Internet extends further, expec calls for reform to go with it.

By Moon Ihlwan in Seou

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ITED BY PATRICK SMITH

IOW CORRUPTION IS EATING AWAY AT BEIJING'S POWER

ven in a country known for rampant corruption, the Xiamen smuggling case gripping China is a stunner. Over the past few years, some $10 billion worth of oil, rs, telecom equipment, and cigarettes has passed illegally rough the Fujian port across from Taiwan. China's biggest-er bust has spread from customs men to top officers in e People's Liberation Army. Now, with the possible in-lvement of Jia Qinglin, Beijing's Communist Party Secre-ry and a close associate of President Jiang Zemin, the andal threatens to undermine the authority of Jiang and s reforms.

The mess in Xiamen could wreak voc on several fronts. In partnership th Premier Zhu Rongji, Jiang has ent the past two years trying to mp life into a spluttering economic-form process. High on their list has en a campaign to force the PLA out of siness—legal and otherwise—and back o the barracks. Now, with evidence aking that the PLA was into the Xia-en smuggling game up to its epaulets, e repeated press reports that Jiang d Zhu have successfully clamped down on the PLA sound e so much Mao-era bluster. "The military, the party—eryone comes out of this looking bad," says a Western olomat.

JIANG AND ZHU: *Damaged by scandal*

D FACES. Neither does the scandal do much for China's edibility across the Taiwan Strait, where presidential elec-ns are less than two months away. Beijing has long ad-rtised Fujian province as a military staging area from ich it could intimidate Taiwan if the island makes any ve toward independence. It's not merely the embarrassing posure of senior officers trafficking in illicit goods—some of ich almost certainly came from Taiwan ports. With tensions ing in anticipation of Taiwan's March elections, a com-nd structure this corrupt raises questions of security and control—and weakens the PLA's credibility even further.

Finally, there is China's expected entry into the World Trade Organization. After a flood of smuggled goods into the country during the Asian economic crisis, Beijing has been eager to plug its porous borders to strengthen ailing industries, including oil and autos, before it lowers trade barriers. But sealing the borders now turns out to be another victory the leadership has claimed too early. With the WTO in view, Beijing's leaders have been eager to demonstrate that they are in charge. Now they look both ineffective and out of touch.

BIG ARRESTS. Jiang is cracking down hard. With discontent rising as the economy struggles, he probably has little choice. Hundreds of investigators have descended on Fujian—and have made numerous arrests already. Key officials, including Fujian's vice-governor and Xiamen's mayor, are being replaced.

But efforts to keep the scandal out of Zhongnanhai, Beijing's leadership compound, are proving difficult. Beijing party chief Jia has been sullied by the reported arrest of his wife, Lin Youfang, who heads a Xiamen trading company. That's getting a little too close for comfort: Jia's ties to Jiang extend back to the 1960s. China's leaders, says Fred Hu, senior economist at Goldman, Sachs & Co. in Hong Kong, "are really afraid that epidemic corruption will undermine the party legitimacy."

The fallout from Xiamen is unlikely to reach to the top—whether or not it is traced that far. But that sword cuts two ways. While Jiang and Zhu will remain, their housecleaning is unlikely to do the job. Xiamen doesn't signal the end of the corruption problem. It's a reminder that China's credibility as a maturing power must still be questioned—and that a slow rot is eating away at the party's precious authority.

By Dexter Roberts in Beijing, with Mark L. Clifford in Hong Kong

GLOBAL WRAPUP

BRAZIL TAMES THE BUDGET

▸ Brazil appears to have turned the orner in its struggle to reduce a $65 illion budget deficit. The Chamber of Deputies approved a bill on Jan. 25 to imit federal, state, and municipal pending, and prevent pre-election ork barrel projects. The bill, expected o be passed by the Senate in March, estricts spending on public salaries to bout half of tax revenues and freezes iring six months before the end of a erm. Brazil's prospects for economic growth and stability depend on slashing the deficit, which is expected to fall from nearly 11% of gross domestic product in 1999 to below 4% by the end of this year. The vote also marks a major victory for President Fernando Henrique Cardoso, who appealed to legislators to pass the bill after state and municipal politicians had urged Congress to reject it.

CITIGROUP IN POLAND

▸ Poland is moving to limit the role of German institutions in its banking industry. With German financial firms already holding 20% of the country's banking assets, Warsaw wants to thwart merger talks between Commerzbank and Bank Handlowy, its premier corporate lender. Polish insurance company PZU, a minority shareholder in Handlowy, filed a lawsuit challenging the deal in December. Policymakers still remain open to foreign investment, however. On Jan. 26, the government opened negotiations with Citigroup, which could buy as much as 65% of Handlowy for about $770 million. Commerzbank says it is still interested in Handlowy; Citigroup declined to comment.

Change. Again. Again

Again. Again. Again. Again.
Again. Again. Again. Again.
Again. Again. Again. Again.
Again. Again. Again. Again.
Again. Again. Again. Again.
Again. Again. Again. Again.

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Business Week

FEBRUARY 7, 2000

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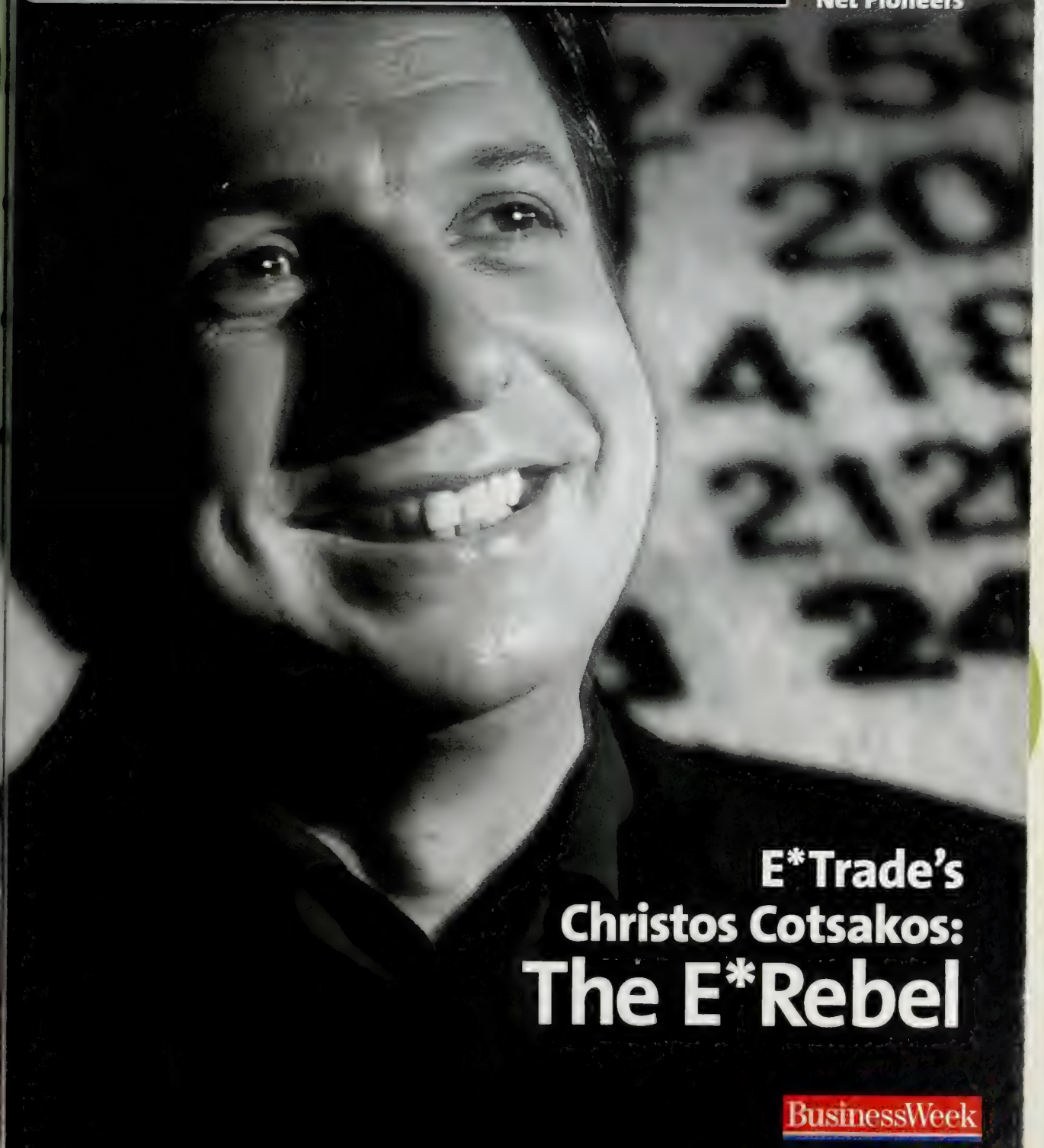
A REPORT ON ELECTRONIC BUSINESS

SPECIAL REPORT

- The E-Commerce Explosion Hits Europe
- Meet The Net Pioneers



E*Trade's Christos Cotsakos: The E*Rebel

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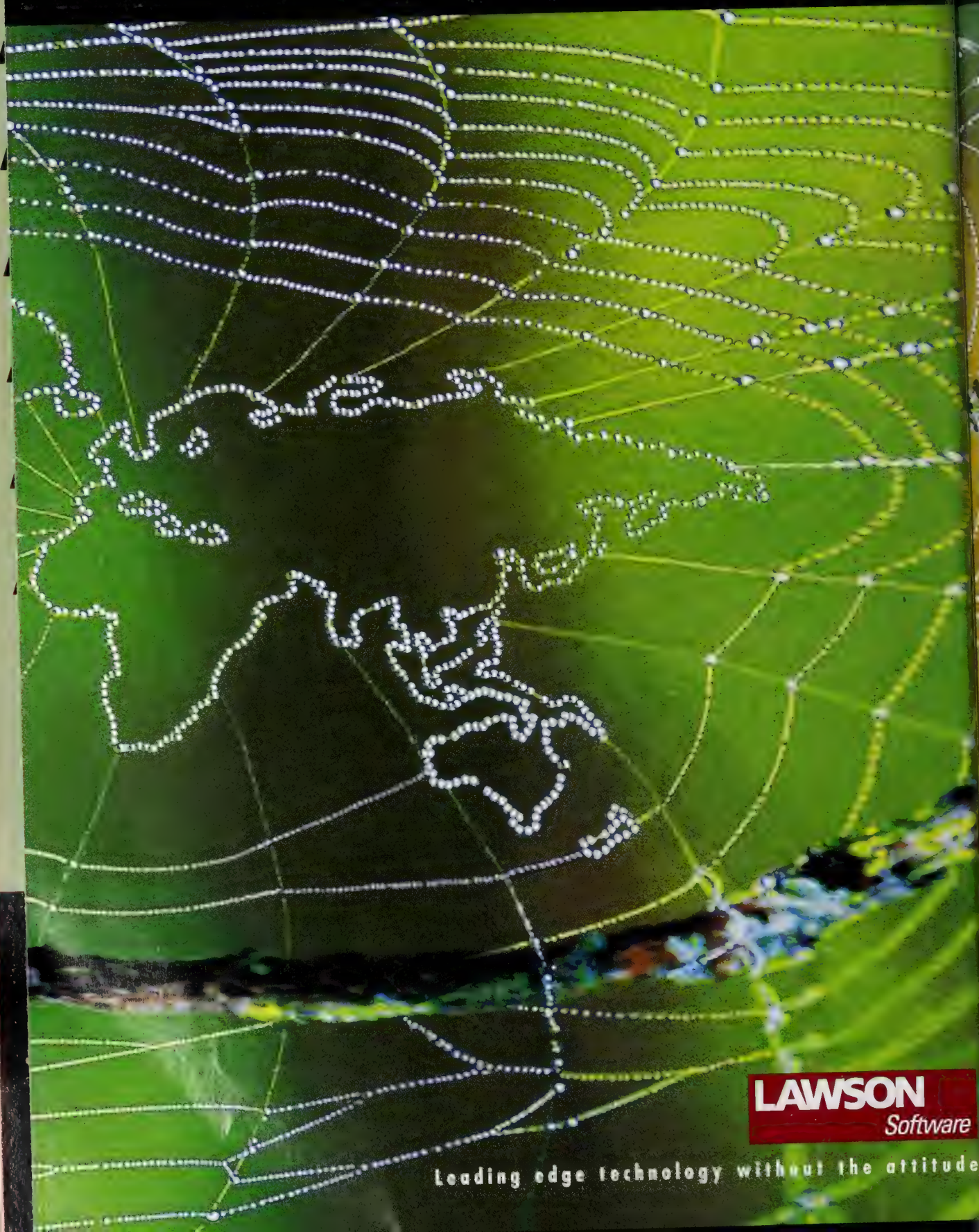

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OR ONE THAT DELIVERS IT?

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A REPORT ON ELECTRONIC BUSINESS

Contents February 7, 2000

cover story

18 Tricks of E*Trade

A former financial services outsider, CEO Christos Cotsakos in three years has made E*Trade the No. 2 online stockbroker. "A lust for being different" sums up a company culture where bonding and wackiness are prized. It's helped make E*Trade the fourth-most-potent brand on the Web. Now he's out to transform his site into a multimedia extravaganza, and when the online brokerage skirmish turns to war, he'll be ready—but he won't be in a suit

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ON THE COVER: PHOTOGRAPH BY WILLIAM MEYER MCLEOD

Business Week e.biz

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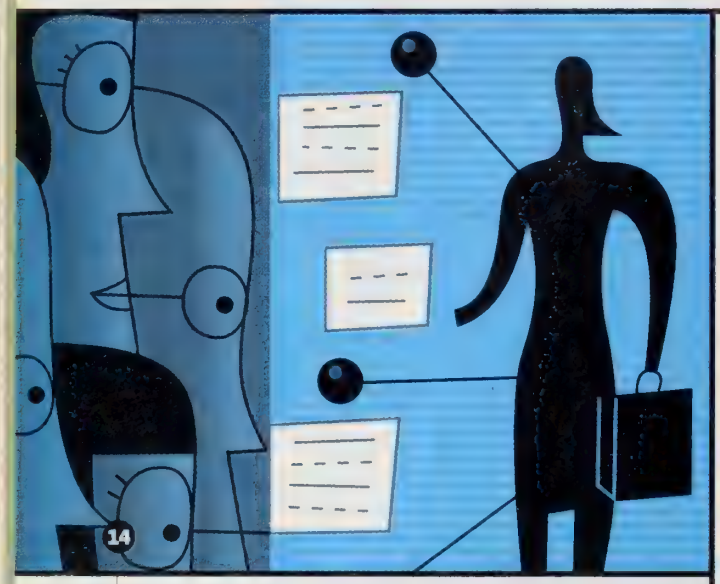

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(CLOCKWISE FROM TOP LEFT) ILLUSTRATION BY DOUG ROSS, PHOTOGRAPH BY ALAN PURCELL, ILLUSTRATIONS BY WILLIAM PLUM, GORDON STUDIO

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THIS WEEK FEBRUARY 7-11

Brian Kelley
Vice President, Ford Motor Co.
Would you buy an SUV from this man? Former GE appliance-guy Brian Kelley is the car guy for Ford's effort to sell cars on the Web. *Movers & Shakers* **Wednesday**

WEDNESDAY
Click, Vroom, Vroom
Meet Brian Kelley, head of Consumer-Connect, Ford's car-buying Web site.
Movers & Shakers by Kathleen Kerwin

THURSDAY
Ahead of the Herd
A weekly dose of insight into e-business stocks.
Street Wise by Amey Stone

FRIDAY
Hope Online
Web site Oncology.com wants to improve cancer care. Will it?
Clicks & Misses by Janet Rae-Dupree

MONDAY
You Call This Service?
E-tailers are great at taking orders, but not so great at delivery. Shape up, folks.
Perspective by Heather Green

TUESDAY
The Web Meisters
No, Pixelpark is not a virtual reality game center. It's the hottest Web-design house in Europe.
Company Closeup by William Echikson

ALSO
Watch for daily additions to our Data Mine, a collection of facts and figures. Sample occasional opinion pieces by staffers, academics, or executives. Browse through stories from BUSINESS WEEK and Business Week e.biz.

The EBIZ.BUSINESSWEEK.COM site is a free area, although some stories from the magazine may occasionally be available only to subscribers.

Did You Miss?

Where the customer truly is king
Tom Siebel created his company's first product with an investment of just $1.8 million. Peanuts by today's standards. But Siebel Systems has struck gold in the software that helps companies manage customer data.
Movers & Shakers, Dec. 15

The case for eToys
O.K. So eToys had some problems at Christmas. Yes, the stock has taken a beating. But a closer look at the company shows it still has a lot going for it.
Street Wise, Jan. 13

◄ **Has he found the next great thing?**
You be the judge. Serial entrepreneur **Jim Clark** (think Netscape) is getting into Web handling of digital photos with Shutterfly.
Company Closeup, Dec. 14

EXTRAS

- **Forums**
  Does it make sense for Web startups to keep r ing up losses? Talk back our Cutting Edge colum nist. Tell our Data Mine columnist how sites ca better serve African-Am cans and other minoriti
- **Search**
  Need some fast facts o e-business? Just search on "data mine."
- **Q&As**
  Have the stories in this week's issue just whette your appetite? Get in-de interviews with Rodolfo Benedetti, who is settin up an incubator of new Euro Internet companie Roel Pieper for venture capital firm Insight Capi Partners. And don't miss the chat with Christos Cotsakos of E*Trade.

Web Site Makeover

These nags are bred speed. So who want poky site when you n to get the odds and track records before y put your money dow Watch our panel www.axcis.com throu its paces and set it o new track.

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EDITOR: Kathy Rebello • **MANAGING EDITOR:** Ira Sager • **PRODUCTION MANAGER:** Karen Turok
PHOTO EDITOR: Anne Murray • **DESIGN & ART DIRECTION:** Mitch Shostak, Viviana Bromberg, Cynthia Rhett

hook.

How to catch a fish:

Take a line, add a hook,
attach a piece of bait.

Fish.

fig. 1

sinker.

How to catch a fish:

fig. 1

Buy a yacht.

Hire a famous
ocean explorer.

fig. 2

fig. 3

Buy the original
copy of *Moby Dick*.

fig. 4

Do focus groups
about fish.

fig. 5

Go shopping for the
finest fishing poles made,
which of course require
designer clothes to match.

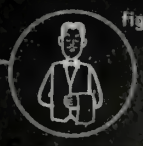

fig. 6

Over expensive seafood dinner,
make plans to fish in 8 months.

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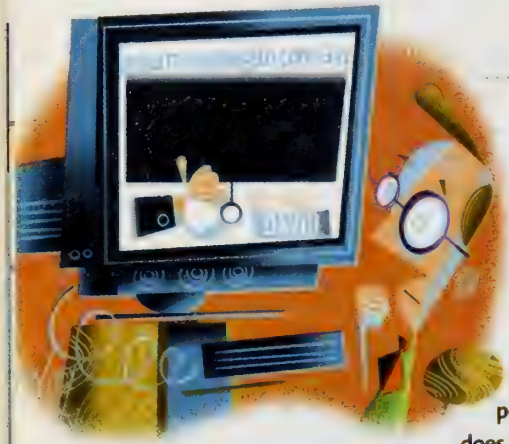

Cyber skin

File this under "maybe not quite what we had in mind." During the 1996 dustup over the Communications Decency Act, it was agreed that Internet pornography laws shouldn't shut out fine art. But a new porn-filtering program does more than block Pablo Picasso's cubist nudes. Like for instance, those naughty pictures of houses posted by the good Rotarians at Realtor.com (who caused the problem by telling homeowners to paint houses a neutral shade!), and, irony of ironies, the home page of anti-Web-porn activist Donna Rice Hughes. "The [page's] background is sort of that parchment color, isn't it?" laughs Hughes. British-based Eye-t Technology Ltd. says its new filter is better because it blocks "excessive" flesh tones rather than looking for keywords to censor. Eye-t's so-called eyeguard program also freezes the computer if it catches Junior looking at too much flesh—tone, that is. Only a teacher or parent can unlock it.

The makers of eyeguard seem comfortable with the idea of protecting children from pictures of tan suburban homes. "We'd rather err on the side of spotting more pornography," says technical director Jonathan Scott. One machine's art, it appears, will always be another machine's smut. —*David Rocks*

Dot.com Math

Think you can still start an e-biz on a dollar and a dream? Average venture-capital deals were more than 50% bigger in 1999 than '98. Here are the biggest deals of the past four years.

Year	Company	Amount (millions)	Company Description
1999	CarsDirect.com Los Angeles	$280	Auto e-tailer
1998	Advanced Telecom Group Los Altos, Calif.	102	Builds phone networks
1997	Castle Tower Holding Houston	74	Owns and operates communications towers
1996	World-Net Access, Denver	60	Holding company of Internet service providers

DATA: PRICEWATERHOUSECOOPERS, MONEY TREE SURVEY, BUSINESS WEEK

Boxed In

With Christmas over, overworked e-tailers may feel like curling up in a box and having a nice scream. But all the good boxes may already be taken.

That's one curious finding of Resource Marketing Inc., a Columbus (Ohio) firm that conducted an online field test of 50 leading Web stores. Purchases began arriving in ever-stranger boxes as holiday frenzy peaked. First, a Furby came in a three-foot-square box from KBKids.com. Resource called to ask whether the doll could be returned to a KB Toys store. Only if you bring it in the box, they were told. "We had to drag this huge box that would barely fit in anyone's car to bring back this little Furby," says P. Kelly Mooney, Resource Marketing's director of intelligence. Mooney's favorite: a figurine from Furniture.com in a huge IBM PC box.

Behind the weird boxes, of course, was holiday online shopping that exceeded even aggressive estimates by 15% or more. But unlike in 1998, every store sent the right goods, Mooney says. That, at least, is progress. —Timothy J. Mullaney

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hit your numbers or
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home page

Ratting Bell Labs

Ooooh, Bell Labs is full of smart guys. Smart enough to invent the laser. Smart enough to invent the transistor. Smart enough to win the Nobel Prize! Smart enough to...let a rat poison company beat them to the Web name BellLabs.com?

Yes, really. Try to get the latest information on fiber-optic networks and you'll be whisked to the home page of Madison (Wis.)-based Bell Laboratories Inc., a $30 million company that registered the domain name in 1995. Bell Labs parent AT&T (now Lucent Technologies), dithered, so the geniuses make do with Bell-Labs.com. "I'm sure they would like to have it, but we aren't going anywhere," says Linda Hughes, a spokeswoman for Bell Laboratories Inc. With Midwestern helpfulness, she offers, "We forward their e-mail to them."

Lucent says the situation hasn't caused them any problems. Dateline NBC, alas, can't say the same. During a hard-hitting 1997 investigative piece on UFOs, the show illustrated a book's claims that little green men really invented transistors by cutting to a shot of Bell Labs' home page—and got the wrong one. Seekers of laser-powered mouse zappers no doubt felt they were in the right place.

web dna

How do you screen candidates for a dot-com position that didn't even exist three years ago? It's a particularly acute problem for Web businesses because there are no guideposts. Can that marketing manager from Hanes really make it in the New Economy? Executive recruiter Russell Reynolds Associates says it has distilled the essence of what makes for a top Internet manager through in-depth interviews with 15 of the Net's best execs. Through a series of questions and answers, they say they can zero in on the six critical characteristics of a successful hire.

CarpeDiem.com Forget seize the day. These Type A's seize the second. They quickly jump on new business concepts or innovations to push their operations ahead with no delays.

Radiate Vision Evangelical to the max. They communicate, communicate, communicate the company vision. But that's just the basics. They know better than to go after opportunities for immediate gratification. Instead, they focus on the long-term strategy.

80/20 Rules By now, everybody knows this one—unless you've been in a cave reading *Sports Illustrated* for the last 3 years. What sets these managers apart: Given only 80% of the data needed, they draw on experience and insight to fill in the blanks.

The Right Stuff No, don't raid NASA for candidates. These managers stay focused on turning every aspect of the business model into a revenue-generating engine. They don't get pulled into tangential tasks with little payoff.

The Organizational Improvisers The key here: people who push ideas, instead of hierarchy. They create organizations fluid enough to respond to customer needs or competitive moves in a split second.

The Learning Obsessed Taking an online course doesn't cut it. These managers dive into the situation to learn firsthand. They hold themselves accountable and candidly examine their own assumptions and competencies—constantly.

Top 10 Things that Irked Holiday Shoppers

10. Site didn't offer enough gift ideas
9. Prices weren't competitive
8. Site didn't provide enough information
7. Site was hard to navigate
6. Selections were limited
5. Didn't get a confirmation or status report
4. Connection trouble
3. Paid too much for delivery
2. Item wasn't delivered on time
1. Product was out of stock

DATA: ANDERSEN CONSULTING

At **2:00 pm**

Springs cost an automotive parts manufacturer $6.8 million.

At **5:54 pm**

They cost $2.8 million.

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BY
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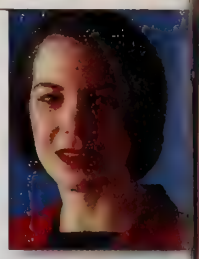

1984 in 2000: Getting Too Personal

Sites are gathering fat files on your shopping habits. They may live to regret it

My favorite part of Christmas is after all the presents are unwrapped and th mounds of paper and ribbon are swept up. Now I get to really check out m loot and try to figure out which skirt will go with that new sweater. N doubt e-tailers are doing pretty much the same thing about now. But instea of mixing and matching skirts with sweaters, they're sifting through th mountains of fresh customer data they've just acquired. Buyers flocking online this year not only showered lucky merchants with sales but tons of personal information as well.

Amazon.com Inc. added more than 2 million new customers in the fourth quarter alone, for a staggering total of 15 million buyers. The number of Yahoo! Inc. shopping orders was almost five times higher than in the same period last year. Even as I type, Net companies are scanning customer lists, tabulating what types of customers bought which kinds of products, what they looked at—and taking educated guesses about what they might buy next.

This data, though, could very well be a privacy time bomb. Despite the lip service many companies pay to privacy, 1999 witnessed a string of embarrassing snafus. Amazon was caught gathering more personal information about customers than the shoppers could possibly have known by reading the site's privacy policy. Audio pioneer RealNetworks Inc. went even further astray: The CD jukeboxes that Real customers constructed using the company's software concealed a spy feature that sent their music preferences back to RealNetworks.

It's hard to take privacy policies seriously when the vanguard keeps messing up. This year could be even worse. "There will be this huge privacy backlash, and it should happen," says Bill Bass, senior vice-president of e-commerce and international at Lands' End Inc.

Perhaps that backlash has already begun. Outraged Netizens swiftly filed class actions when they learned about the privacy transgressions by Amazon and RealNetworks. And last month, the Supreme Court upheld a federal law that bars states from selling data gleaned from drivers' licenses and auto registration

Scattered court actions, however, probably won't address the fu damental causes of electronic affronts to privacy. More than eve dot.coms are under pressure to perform. To generate real sales, the need large pools of repeat customers. So the companies are turn ing ever more aggressively to data mining.

FOCUSED EFFORT. Here's what that really means: More shopping an browsing data are becoming linked to your real identity an stockpiled for use in direct-marketing campaigns. The advertisin you see is more focused—which means you are exposed to narrower swath of offerings, probably tailored to your income. Mo troubling, if you are ever the target of a lawsuit, all the details where you browse and what you buy may become public.

In the marketing stampede, companies are taking their cue from Net advertisers like DoubleClick that are pulling together dat from Web sites, catalog companies, and other data-marketing giant Yahoo! used to have a window o your Internet searches. Now through a partnership with Kma Corp., it knows your private pas sion for discounted Martha Stewa sheets, too. Privacy policies don help much. Your favorite onlin calendar site may promis to shield your data, but th company that acquires next month doesn't have t

Web sites insist that con sumers like targeted mar keting—an argument tha sounds thin and cynical. they really believe that, in stead of burying itty-bitty "opt out" clauses on sites, they shoul post bold invitations to "opt-in. Customer trust, after all, is a gi worth keeping. ●

At **11:00 am**

Owens Corning was facing increases to their transportation costs.

At **3:58 pm**

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BY
ROGER O. CROCKETT
roger_crockett@ebiz.businessweek.com

Attention Must Be Paid

The African American Web community is swelling—and underserved

Silas Myers is a typical new millennium brother. He's 31, holds an MBA from Harvar University, works as an investment analyst for money manager Hotchkis & Wiley, an pulls in a salary close to six figures. Oh yeah, and he spends about 10 hours a wee online, buying everything from a JVC portable radio to Arm & Hammer deodoran "Maybe I'm nuts," he says, "but shopping online is so much easier to me.

No, homey, you're not crazy. Millions of African Americans are livin' large online. They're younger, more affluent, and better educated than their kin offline. And they're not tiptoeing onto the Net. They're flat rockin' the joint. Five million blacks now cruise through cyberspace, nearly equaling the combined number of Hispanic, Asian, and Native American surfers, according to researcher Cyber Dialogue.

True, Net use among African Americans continues to lag behind the white population: 28% of blacks vs. 37% of whites. But it's time to take a closer look at the digital divide. While those who don't have Net access tend to be poor and undereducated, there's a large group of African Americans who are spending aggressively on the Web. "We're looking at a tidal wave coming of African American-focused content and online consumers," says Omar T. Wasow, executive director of BlackPlanet.com, a black-oriented online community. "You ignore it at your peril."

MAGIC TOUCH. The danger comes in succumbing to the myth that black consumers are a threepenny lot. Blacks earn $441 billion in annual income, according to researcher Target Market News Inc. What's more, nearly 30% intend to place Net orders, compared with 21% of the general population.

Some Web sites are awakening to the sunburst of black consumers online. In early January, Magic Johnson teamed with former Assistant Secretary of Commerce Larry Irving to form UrbanMagic.com, a site for black-oriented news, chat, and e-commerce. It competes with BlackPlanet.com, Netnoir, and Tribune Co.'s BlackVoices.com.

BlackVoices, with nearly 2 million visitors in December, launched its Isoko e-commerce site in November. Isoko (*soko* is Swahili for marketplace) proved so popular that BlackVoices shut it down on Jan. 18 to add feature such as order and shipping confi mations. And BlackPlanet will launc its e-commerce site this spring t satisfy members who want to sho "We're seeing enormous enthusiasr for e-commerce," says Wasow.

For good reason. African Amer cans have become smitten with th ability to compare prices and find bargain online. Melvin Crenshaw, manager at *Kidpre neurs* magazine, recently used the Travelocit Web site to save $300 on a ski trip to Denver. "I really like the val ue," he says.

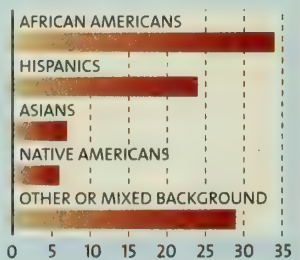
It's a shame, then, that so few sites market to such an attractiv group. Almost every bookstore on the street has a section o African American or ethnic literature. So it's shocking that e commerce giants like Amazon.com don't have ethnic book sections

The solution is easy. Web merchants can create what the Nationa Urban League's B. Keith Fulton calls "microbun dles"—Web categories within a site's merchandis that resemble the inner-city black bookstore o clothier. "You want blacks to click on a butto and feel like they're in virtual Africa or virtua Harlem," says Fulton, the Urban League's directo of technology programs and policy. To attrac blacks, he recommends decorating that corner o the site in *kente* cloth patterns.

Word that your site addresses the black mar ket will travel quickly. The viral marketing of th Net is simply what black folks call the grapevine "In the black community, word of mouth ha been a central means of getting news and in formation," Fulton says. You don't need a huge marketing campaign if your site has a produc mix and design that attracts black consumers. So put a little soul into your site. ◉

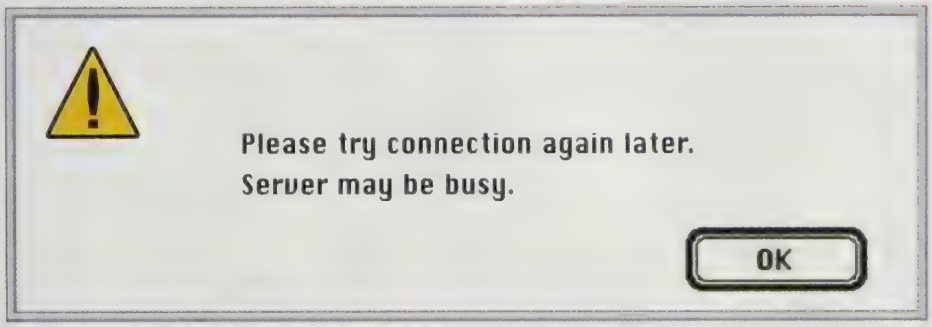
CYBER SOUL

People of color are not mere onlookers in the Internet revolution. Of the 14.4 million minorities online, African Americans lead the pack.



DATA: CYBER DIALOGUE

Is this the holiday greeting you sent to your customers?



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In his drive to create a Net powerhouse, Christos Cotsakos is building a culture that's edgy, a bit bizarre—and often brilliant

Tricks of E*Trade

by LOUISE LEE

It's a weird way to say "welcome," even by Silicon Valley standards. Soon after Arthur Havers joined online brokerage E*Trade Group Inc. as vice-president for international business development, Chief Executive Officer Christos M. Cotsakos subjected him—as he does every new hire—to the company's initiation rites. At one of Havers' first staff meetings, Cotsakos asked him to stand on a chair and reveal something about himself to more than 40 people who were watching. For a moment, Havers, who describes himself as a "proper" Englishman who shuns the spotlight, felt his mind go blank. But then he did something completely out of character: He pulled out a penknife and sliced off the expensive Hermes tie that he was wearing. Cotsakos'

COVER STORY

JAMIE TANAKA

Cotsakos' management style—raw creativity—could become a model of how it's done

game had awakened his wild side.

Think of it as being put in the E*Trade hot seat—one of many far-out tactics used by Cotsakos in his quest to build a powerhouse for the Internet era. Like other Web chieftains trying to make it big, Cotsakos pours his energy into technology, brand-building, and distinctive offerings for the online masses. But, like entrepreneurs of yore—Hewlett-Packard Co.'s Bill Hewlett and David Packard in the 1940s and Apple Computer Inc.'s Steve Jobs in the 1970s—Cotsakos believes that a remarkable corporate culture is just as crucial for catapulting a company to success.

That's why he's spending gobs of time crafting a culture for the Internet Age that at times seems downright bizarre, and at other times brilliant. But it's always pure Cotsakos: edgy, out there, theatrical, and bursting at the seams with enthusiasm. Cotsakos sums it up in five words: "A lust for being different." That's shorthand for his attempt to build a company that's jammed with people who are wildly creative, arch-competitive, yet so closely knit that they're almost family.

KOOKY? To manage that tricky combo, Cotsakos has become the Mikey of Silicon Valley—he'll try most anything. To make executives move faster, he organized a day of racing Formula One cars at upward of 150 miles an hour. To create a loose atmosphere, he has employees carry around rubber chickens or wear propeller beanies. And to bond his team, he had his managers attend cooking school, where they had to depend on one another to whip up a gourmet dinner. "It's all about getting people excite about how they can make a difference as person and as a team," says Cotsakos.

These techniques may sound kook but management experts say Cotsakos ma be on to the company culture of the futur With 10,000 new Web-site names bein created every day, Internet companies ar up against long odds, indeed. To beat ou the other dot.coms, as well as establishe behemoths, upstarts have to master a ra blend of business discipline and inventive ness—all the time moving at Net speed. E*Trade emerges as one of the online gi ants, Cotsakos' management style may b held up as a model.

He's already getting high marks fror the experts. Take the chair-standing ritua which seems cruel at first blush. Such antic

Cotsakos' Financial Empire

STOCK TRADING

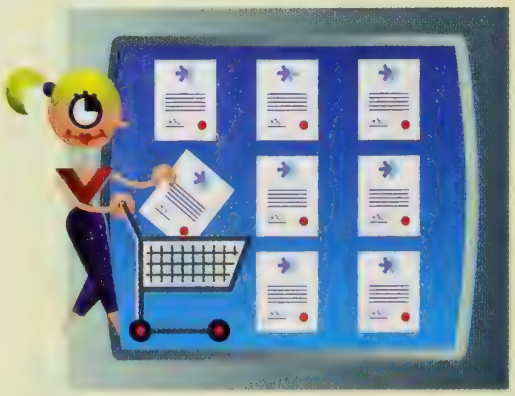
E*Trade's way: On the Internet since 1996, it offers stock transactions at $14.95 each on the Big Board and $19.95 on the Nasdaq. During the quarter ended Sept. 30, E*Trade had a 15.1% share of the average daily online trading volume—second only to Charles Schwab's 23.3% share.

How E*Trade stacks up: Cotsakos has positioned E*Trade's pricing between the $29.95 fee at Schwab and Merrill and the $8 fee at bare-bones brokerages like Ameritrade. Now he must convince investors that E*Trade gives them all the information and features they need. Otherwise, what now looks like the thick middle of the market may turn out to be distressingly thin.

MUTUAL FUNDS

E*Trade's way: Sells shares in about 4,600 mutual funds, ranging from the well-known Vanguard Group funds to the obscure Yacktman Fund. Charges a flat sales commission of $24.95. Pushes its own four in-house branded index funds, such as the E*Trade Technology Index.

How E*Trade stacks up: Will do well—since it markets almost as wide a range of funds as giant mutual-fund supermarkets such as Fidelity Investments and, meanwhile, undercuts that firm's $75 commission. That should help Cotsakos overcome Fidelity's huge brand advantage.



INITIAL PUBLIC OFFERINGS

E*Trade's way: As a specia lure, it sells shares in IPOs. So far, it has been a dealer in more than 150, including high-profile deals like iVillage Inc. and TheStreet.com. Boasts that its IPO sales give small investors access to shares that up till now they have been shut out of.

How E*Trade stacks up: Cotsakos looks like the friend to the little guy, especially since Ameritrade and Datek don't sell IPO shares. But E*Trade is overshadowed by Schwab, which has strong alliances with underwriting powerhouses that funnel big chunks of IPO shares to its customers. Unless Cotsakos can secure more stock, he's going to lose top-quality traders to Schwab.

ONLINE BANKING

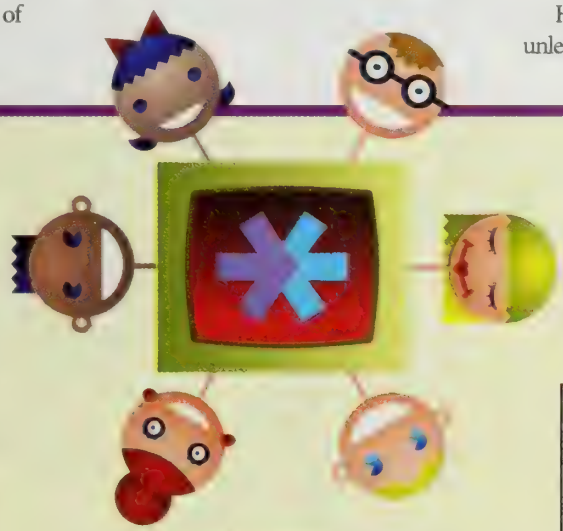
ink employees together emotionally and oster an air of openness, says Charles A. 'Reilly III, professor of organizational behavior at Stanford University's Graduate School of Business. "If you're open and ionest with each other, you're more willing o propose things that are out of the box," ie says. Company rituals also help employees grasp strategic objectives so that hey take their own initiative and make lecisions quickly—a must for any Web ompany, says Jennifer A. Chatman, professor of organizational behavior at the Haas School of Business at the University of California at Berkeley.

So how did Cotsakos come up with a winning formula? To be sure, it's not something he read in management textbooks. Instead, his philosophy is born out of his days as an infantryman in Vietnam, where he saved the lives of his buddies—and they saved his life in return. "It's all about loyalty and trust and who you have in the foxhole with you," he says. "At E*Trade, we're an attacker, we're predatory. We believe we have a God-given right to market share."

E*Trade has to be on the offensive, given Cotsakos' ambitions. His dream is to assemble a financial services empire that not only overtakes online rival Charles Schwab & Co. but also matches the breadth of brick-and-mortar giants such as Merrill Lynch & Co. and Citigroup. The competition is intense. Schwab is in the lead—and a handful of feisty, bare-bones Net brokers are doing trades at $8 a pop, compared with $14.95 for E*Trade. Cotsakos has to beat back the Net players and grow fast before Merrill Lynch and others bring all their marketing muscle to bear on the Web.

He knows he can't beat the big guys unless he creates one of the monster brands

At E*Trade, "we're predatory," says Cotsakos. "We believe we have a God-given right to market share"



ONLINE BANKING

E*Trade's way: Through its new Telebanc subsidiary, offers banking services, including online checking accounts with ATM cards, printed checks, and bill-paying service. Minimum $1,000 balance. Also promotes savings and money-market accounts and certificates of deposit. Loans come through partners.

How E*Trade stacks up: Cotsakos is in a great spot. His trading customers are prime candidates to become banking customers. If he can convince consumers they don't need to stand in a bank line again, the branch office on the corner will look more like a liability than an asset to his traditional banking competitors.

INFORMATION

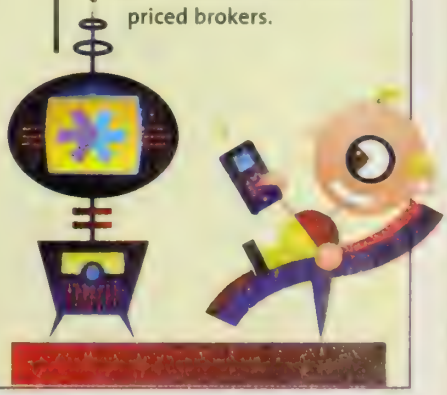
E*Trade's way: Hosts online forums with professional money managers and big-name chief executives. Sponsors online chat groups on individual stocks and topics such as "Investing for Your Kids." Offers research materials, including news stories and press releases on individual companies.

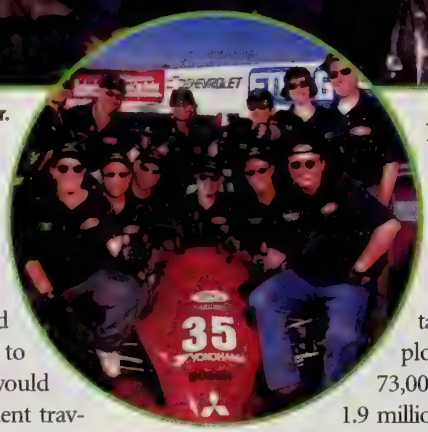
How E*Trade stacks up: Cotsakos has hit the sweet spot with do-it-yourself investors. But unless he bolsters the content on his site, he could lose research-hungry customers to Schwab, which offers more, including research reports on individual companies from analysts at Credit Suisse First Boston.

THE FUTURE

E*Trade's way: Cotsakos envisions E*Trade as a hub where customers go for self-service investing, banking, insurance, loans, and financial planning. His next priority: personalized Web pages. Ultimately, E*Trade's service will be zapped over TV and handheld devices.

How E*Trade stacks up: Cotsakos makes a convincing case that many consumers will be able to handle most of their financial lives online. That could neutralize the advantages of giants like Merrill Lynch. Now he must craft a marketing campaign to attract customers who are inclined to use his services and who won't ultimately defect in favor of the lowest-priced brokers.





To learn about teamwork, E*Trade managers took a cooking class together. To learn about speed, they raced Formula One cars at up to 150 mph

in the financial-services universe—a single online location where people can handle all their personal financial needs. He's partway there. Already, the company offers consumers stock and mutual-fund trading, and bank accounts. Through partners, it doles out personal loans and insurance. San Francisco's E*Offering Corp., of which E*Trade owns 28%, supplies hard-to-get shares in initial public offerings (page 30). And on Jan. 12, E*Trade closed its $1.8 billion acquisition of Telebanc Financial Corp., a leading online-only bank. That means he will be able to fully integrate his brokerage with Telebanc's array of consumer banking services.

Now he's going broader and deeper. Cotsakos is about to launch the first phase of a two-year, $100 million project that will transform the E*Trade site into a multimedia extravaganza. He calls it "digital financial media"—the center of which is a site tailor-made for each person, dishing up just the stock quotes, news, and financial information that matches the customer's interests and income. Live, TV-quality video feeds will carry news and interviews with CEOs. Researchers, loan agents, and financial advisers will be tapped for real-time video-conference chats. And ads and promotions tailored to individual interests would appear, showing frequent travelers, for instance, the latest airline discounts. The first piece arrives in April with the introduction of a new electronic calendar that alerts customers by e-mail or notices on the Web site of upcoming news, such as earnings-release dates on companies in their portfolios.

GETTING RESULTS. When Cotsakos is done, his customers will be able to tap into their financial Grand Central Terminal from anywhere—not just the PC in the den. He's cutting deals so that the services can be zapped over cable TV, satellite-TV systems, and wireless handheld gadgets. And he wants to set up E*Trade-branded TV and radio programming. "He's always one step ahead," says analyst Gregory W. Smith of investment bank Chase H&Q. "E*Trade is truly separating from the other brokers."

Cotsakos has the results to prove it. In just three years, he has made E*Trade the No. 2 online stockbroke claiming a 15.1% sha of average dai trades—lagging behin only Schwab's 23.3 share. The company tally of customers has e ploded, from a trickle 73,000 accounts to a gush 1.9 million. Only Schwab and F delity Investments have more online a counts—about 3.3 million each. Cotsako drive has made E*Trade the fourth-mos potent brand name on the Web, up the with Amazon.com, according to Opinio Research Corp. International.

And this year looks as if it could be an other winner—but don't expect E*Trad to make a profit anytime soon. The com pany reported revenues of $246 millio for the quarter ended Dec. 31, up 112% and the $5 million net loss was narrowe than expected, in part because of rapi account growth. For this yea E*Trade is forecast to post revenue of $923 million, up 48%, accord ing to Credit Suisse First Bosto (CSFB). Still, E*Trade's stock—along with that of the rest of the onlin brokerages—continues to sag some 60% from its spring highs as investors worr about all the rivals piling in. Long-term, an alysts expect the stock to fly high when i translates its account gains into profits "They have a fantastic future in front o them," says analyst James Marks of CSFB.

If so, give some of the credit to Cot-

E*Trade stock sags 60% below last spring's high—like that of other Web brokers

The horizon widens

ddenly, e-commerce is on everyone's horizon.

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sakos' offbeat past. He had no experience in the financial-services industry before he arrived at E*Trade. Instead, he had spent 19 years in the shipping business with Federal Express Corp. and four years at market researcher AC Nielsen Corp., ending up as co-CEO there. His outsider status has made it easy for Cotsakos to toss aside many of the stuffy practices of the traditional brokerage business. He uses, for example, sassy attack advertising. "If your broker is so great, how come he still has to work?" was the punchline for an early set of ads.

His personality sets him apart, too. Unlike the buttoned-down Wall Streeter, he almost never wears a suit, preferring to choose from his wardrobe of 150 sweaters. He's a raucous jokester, sometimes sprinkling his shtick in employee meetings with some good-humored profanity. "We're hot s--t!" is a frequent bit of pep talk. And he's a touchy-feely guy, routinely cheek-kissing and hugging employees, both female and male.

FURTIVE SIP. Cotsakos has always been a rebel. He grew up the fourth of five children born to poor Greek immigrants in Paterson, N.J. His mother and father worked as a store clerk and a cook, respectively. He was bored in school, ending up with near-failing grades. He cut classes and hung around the street—which led to fights with other boys. His favorite weapon: a roll of quarters he would clutch in his fist. As ringleader of his block, "you had to be more aggressive, because otherwise someone would bump you off," he says.

A turning point came at 13. Cotsakos was captain of the altar boys at St. Athanasios Greek Orthodox Church. One Sunday morning, as he was helping himself to the communion wine, the priest spotted him and called him up before the congregation for a scolding. He turned Cotsakos' misdeed into a lesson about leadership responsibilities. Although the young Cotsakos was embarrassed, he was also transformed by the priest's attention. "I felt honored that he talked about me as a leadership example," Cotsakos says.

He got to play that role for real as a 19-year-old Specialist Fourth Class in Vietnam. In March 1968, in battle near Hue, Cotsakos crawled 50 meters through a sugarcane field under enemy fire and used grenades to kill four Vietnamese soldiers who had pinned down his unit. That earned him a Bronze Star. Later that month he was caught in crossfire between U.S. and Vietnamese forces and was shot in the left thigh, ending up in the hospital for four months.

His military exploits, though, didn't make up for his poor high school record when it came time to go to college. After Cotsakos arrived home from the war, he had to rely on a family connection to get him into Paterson State College in New Jersey. He majored in communications because, he says, he needed to improve the way he dealt with others. "I did such as lousy job of it in high school," he adds.

the deal to his boss for approval at th last minute. "Christos didn't follow th rules," says Robert Weissman, D&B's fo mer CEO. "He made people feel unsafe Still, Cotsakos' style was one of the reaso Weissman promoted him to be Nielse co-CEO in 1995 and asked him to whi the company into shape prior to a spin-o from D&B.

"DISGUSTING." It was a miserable nin months. He disagreed with his co-exe Robert J. Lievense, currently Nielsen's pre ident, about everything from managemen style to where Cotsakos should put his o fice. Nielsen said in a written statemen that the two men worked "under som

Cotsakos is a touchy-feely boss, cheek-kissing and hugging his employees

The lessons took. After graduation, even though he was hours late for the interview at Federal Express, he managed to talk his way into a job as a package handler, at $3 a hour. He moved up fast at FedEx, then a scrappy startup, sometimes working around the clock, and got promoted into management after just one year. FedEx named him to head its West Coast region—before sending him abroad to run European operations in 1988.

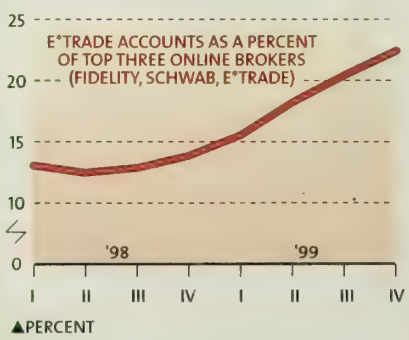
Cotsakos stayed in Europe for his next job, in charge of European operations for AC Nielsen, then a unit of Dun & Bradstreet Corp. He rose in the executive ranks there, despite stepping on a lot of toes. For instance, Cotsakos would nail down potential acquisitions on his own and bring

very difficult circumstances attempting t turn around" the company. One of Co sakos' low points was when Nielsen had t lay off 3,500 people. "I will never do tha again," he says. "It was disgusting." Toda Cotsakos pledges that he will forgo his en tire salary before workers at E*Trade lose their jobs.

In spite of his difficulties at Nielsen Cotsakos showed no self-doubt when h took on the job at E*Trade in March, 1996 just a few weeks after it started offerin brokerage services on the Web. E*Trad was an offshoot of Trade Plus, a stoc trading service started in 1982 by Willian A. Porter that operated over a private net work. When Cotsakos interviewed for th CEO job, he quickly spotted the opportuni

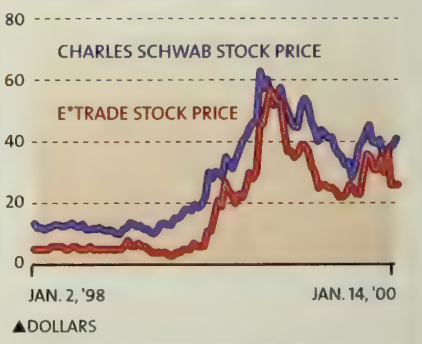
Online Trading Takes off

E*Trade is growing faster than leaders Schwab and Fidelity...



DATA: COMPANY REPORTS

...but like the rest of Web brokers, its stock price is down



DATA: BLOOMBERG FINANCIAL MARKETS

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ty for E*Trade. Still, "he wasn't hired because he already knew the Internet," says Rebecca L. Patton, E*Trade's former vice-president for marketing. E*Trade hired him, she says, because "he knew how to excite the troops."

"Incite" is more like it. Teamwork isn't just a slogan for Cotsakos. It's do or die, just as it was in Vietnam. At E*Trade, he says, "people will die economically" if they don't give their all for one another. The CEO's rhetoric may be over the top, but his management lessons deliver results. His brand of teamwork helped E*Trade pull through a huge crisis: a computer outage in February, 1999, that affected about 5% of customers. With computers down, customers jammed the phone lines to place trading orders, overloading the phone staff. But others jumped in to help. Jerry D. Gramaglia, E*Trade's senior vice-president for marketing, sent the 15% of his staff of 120 who were licensed to take stock orders over to handle phones. And top managers, including Gramaglia himself, pitched in to call E*Trade's best customers to apologize.

Cotsakos' policy is no layoffs. He says he'll forgo his salary before firing people

Cotsakos was deeply involved in fixing that mess, too. On smaller matters, he makes people solve their own problems—though he sometimes tips the scales. About a year ago, Debra J. Chrapaty, then the company's chief information officer, got into a beef over her budget with Chief Financial Officer Leonard C. Purkis. She g so mad that she ripped up Purkis' pr posal in his face, whereupon he storm out of her office. Chrapaty turned to Co sakos for help, but he told her that s and Purkis had to work out their diffe ences. However, Cotsakos secretly sent bouquet of roses to each of them, makin both think the other had sent the flowe The card on each bouquet bore the me sage: "We're a team. Let's work it out."

That did the trick. Face-to-face on again, Chrapaty and Purkis resolved the differences. Purkis came to understan the importance of

CHRISTOS M. COTSAKOS, CEO, E*trade.com

BORN

July 29, 1948

EDUCATION

BA in communications in 1973 from Paterson State College; MBA in 1983 from Pepperdine University; PhD candidate in economics at the University of London; degree expected in 2000. With a minor in acting at Paterson, he played the role of Schroeder in a college production of *You're a Good Man, Charlie Brown.*

MILITARY

A first-generation Greek-American from industrial Paterson, N.J., Cotsakos volunteered and served as a rifleman in the 101st Airborne Division in Vietnam in 1967 and 1968. Was awarded the Bronze Star Medal for bravery in a battle near Hue. Why he volunteered: "I'd always thought it was something noble to do."

LITTLE KNOWN CAREER START

After college, taught eighth-grade math as a substitute teacher in inner-city New Jersey. Teaching kids labeled as troublemakers, he used sports scores and the stock market to engage them.

CAREER HIGHLIGHTS

Started as a package handler at Federal Express in Los Angeles in 1973 and rose through the ranks to become the vice-president for European operations from 1988 to 1992. A.C. Nielsen co-CEO from 1995 to 1996. Named E*Trade CEO in 1996.

SOMETHING HE HATES

Company politics. "It's hurtful and disruptive and channels negative energy."

FAMILY

Married for 26 years to Tami, who shakes her head at his drive. "He's so multi-task-oriented it's ridiculous," she says. Daughter Suzanne Renee, a college sophomore, is studying theater—just like Dad.

FAVORITE BOOK

Harold G. Moore's *We Were Soldiers Once... and Young*, a memoir of the 1965 Vietnam War battle of Ia Drang. "I lived it. I was a soldier once and young. I've read it 10 times."

CARS

1999 metallic-green Porche 911; 1998 black Jaguar XK8. "I like things that go fast," he says. He also likes things that look cool: He's buying a restored 1964 English taxicab for $30,000.

OTHER INDULGENCE

Building an Italian bocce-ball court at his new house in Silicon Valley.

WHY HE WEARS THOSE SWEATERS

His wardrobe includes 150 sweaters. That doesn't match Imelda Marcos' shoe collection in the excess department, but it's close. He wears them almost every day because they're comfortable and informal. Shuns ties and suits. "Ties are a rigid symbol of how not to communicate," he says.

Cotsakos' leadership ideas stem from his days as an infantryman in Vietnam. "It's about loyalty an trust and who you have in the foxhole with you"

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Chrapaty's computer projects, while Chrapaty learned more about the impact of tech spending. Nowadays, the two are pals. "It isn't the bean counters vs. the propeller heads," Purkis says. Working together to resolve the dispute "was much more impactful than if Christos had resolved it himself."

Cotsakos typically pushes decision-making deep into the organization. For instance, he asked the human resources team to come up with a new employee recognition program to replace one that was a burden to managers. To get the creative juices flowing, HR Manager Linda Kelleher gathered a small group from marketing, Web site development, and HR for a brainstorming session in a hotel room in Palo Alto, Calif. She broke out bags of M&Ms, opened bottles of wine, and popped a *South Park* video into the VCR. Cotsakos "was telling us to be creative, and he gave us the freedom to do it," she says. The result: Employees now nominate one another for awards throughout the year. Employees who are cited get entered into a weekly drawing to win a $500 gift certificate.

POP QUIZ. Cotsakos' style, though, can also rub people the wrong way. A few months back, he lost a top executive hire when he insisted that the new guy participate in the stand-on-a-chair ritual. Another time, he served up a pop quiz for managers about details of the company's Web site and business relationships. Nearly everyone flunked. Cotsakos, who was trying to show that managers need to be prepared for anything, knew he would catch people off guard. "I remember the stark look of fear on everyone's face," he says. He admits that some people found the exercise demoralizing. Three managers even said in an employee survey that he ought to be fired, Cotsakos says. Still, he doesn't regret using the test, which he said had "shock value."

In fact, Cotsakos rarely backs off. In the summer of 1998, he proposed to his board a quadrupling of E*Trade's advertising budget. The upshot: Cotsakos' plan would turn E*Trade, one of the few Internet companies that was making money, into an unprofitable one overnight. The directors sat in stunned silence. "There was a hollow feeling in our stomachs," recalls E*Trade Director William E. Ford. They balked. But Cotsakos spent hours walking them through his rationale: Competition was mounting, and E*Trade should spend big to lure customers early in the game. Ultimately, he won them over. E*Trade plans on spending up to $350 million on marketing in the fiscal year that ends in September. It's getting results, too: The company landed nearly 400,000 new accounts last quarter.

In 1998, Cotsakos quadrupled the ad budget, to lure customers early in the game

Cotsakos rarely calls time out. Chief Operating Officer Kathy Levinson runs day-to-day operations, but Cotsakos is still a whirling dervish of activity both inside and outside the company. Over the course of one day in October, for instance, Cotsakos held a pre-dawn conference call with a board committee, met with two potential acquisition candidates, discussed the new

CALL IT A BURNT OFFERING

Owning a chunk of an online investment bank is a key part of Christos M. Cotsakos' vision for E*Trade Group Inc. But it could turn out to be more trouble than it's worth. Recent glitches at E*Offering Corp., into which Cotsakos has poured $20 million and countless hours of precious time, show just how tricky it can be to translate traditional Wall Street operations into something that makes sense—and money—in cyberspace.

Cotsakos' odyssey began a year ago when he was seeking a way to secure more shares of initial public offerings for customers of online broker E*Trade. Most offerings are managed by traditional investment banks, which get first dibs on the shares, so E*Trade had been receiving paltry allocations of stock, frequently less than 10% of an offering. His answer: help start E*Offering, of San Francisco, a startup investment bank that handles stock offerings over the Net.

It seemed like a good deal at the time. In exchange for a $10 million investment in January, 1999, E*Trade got a 28% stake in E*Offering, which turns over 50% of its stock allocations to E*Trade to sell to its customers. E*Offering has funneled to E*Trade customers some of this year's biggest IPOs, including shares of Red Hat Inc., which soared 271%, to $52 on the first day of trading. Cotsakos "understood the synergies right away," says E*Offering Chief Executive and co-founder Walter W. Cruttenden III.

But so far, E*Offering hasn't delivered the way Cotsakos had hoped. The company has been a co-manager or member of the underwriting syndicate in about 70 deals, including 50 IPOs—exceeding internal expectations for overall deal volume. But it has lead-managed only one deal: an $84 million secondary offering this past June of Houston-based online lease-financing company First Sierra Financial Inc. In the rest of its deals, E*Offering's share allotments have been smaller than 10% of the offering. That's far less than the 40% that lead managers typically receive.

At the same time, E*Offering's operations went out of whack. Expenses soared after Cruttenden, founder of regional investment bank Cruttenden Roth Inc. in Newport Beach, Calif., hired dozens of administrative staff and back-office workers that, Cotsakos says, a traditional investment bank might need but an online one doesn't. And Cruttenden initially put E*Offering's bankers in Newport Beach in Southern

employee rewards program with his human resources staff, reviewed an upcoming earnings announcement with his finance staff, met with a new hire, and had dinner with a venture-capital fund manager.

It's the same at home. "I wouldn't say he's wonderful at relaxing," says Tami, his wife of 26 years, who adds that Cotsakos occasionally toys with the idea of pursuing another graduate degree after he completes his doctorate in economics at the University of London in the next year or two. He spends about 40 hours a month on his doctoral thesis about corporate governance in newly public companies—working on planes and at home late at night. He admits he sacrifices free time to pursue the PhD. "Why should I sleep when there's so much to learn? I do want to have it all," he says.

How does he do it all? "It's crazy," he admits, "because it's all 7 by 24 by 366." He reads only the first three sentences of any e-mail message. He attends just 20 minutes of a meeting, unless the subject is extraordinary. And he encourages the staff to operate the same way. He asks them to think in "quick bursts." To spark creativity, he has installed electronic whiteboards on the walls so people can jot down ideas they hit on. Visiting employees can snag offices designed to look like phone booths. To remind employees that their successes may be fleeting and they've got to keep running hard, he had garage doors installed throughout the facility. "They're more symbolic than functional," says Cotsakos. "The only thing I'm really afraid of is two kids in a garage."

BATTLE LOOMS. When you're running so fast, though, it's easy to stumble. Already, E*Trade has been hobbled by a series of embarrassing service interruptions, such as the one last February. If the company is still grappling with computer outages for the existing core service, how will it deal with the new technical demands of the souped-up personalized multimedia service that Cotsakos envisions? Cotsakos says he's spending heavily to upgrade E*Trade's computer systems to avoid future outages. In the fiscal year that ended Sept. 30, E*Trade spent about 12.4% of revenues, or about $76.9 million, on technology, up from 10% of revenues a year earlier. And that will keep going up.

The competition isn't getting any easier for Cotsakos, either. The number of households that trade online is expected to grow from 4.3 million in 1998 to more than 20.3 million in 2003, according to research firm Jupiter Communications Inc. But as of mid-1998, the number of firms selling trades over the Internet was 140, up from 69 a year earlier, according to industry researcher Gomez Advisors Inc. And the biggest battle is yet to come. Powerhouses Merrill Lynch and Morgan Stanley Dean Witter are coming online. "That's where you'll see blood" shed by the brokers already operating online, says an analyst at one of E*Trade's institutional shareholders.

So far, Cotsakos is more than holding his own. And with the rich array of offerings now on the Web site, competitive pricing, aggressive marketing, and a unique corporate culture that keeps teamwork and creativity at fever pitch, E*Trade should be a formidable competitor when the online brokerage skirmish turns into all-out war. Cotsakos shows no fear. "I'm gonna be remembered as one of the innovators, one of the guys who changed all the rules," he says. Nothing else will do if E*Trade is to become a giant, and Cotsakos the architect of a corporate culture custom-made for the Net. ●

e.biz online

To hear more about Cotsakos' views, see a Q&A at **ebiz.businessweek.com.**

NONNIA ALVIN

California, where he lives—far away from the Net deals. Cruttenden admits he fumbled the ball. "We could clearly be more efficient in some things we do," he says.

All that fumbling is costing him his job. He's about to move out of active management. Cotsakos, E*Offering's chairman, has started a search for Cruttenden's successor. He also organized a $38 million second round of financing to keep the startup afloat—investing another $10 million of E*Trade's money. In the meantime, his executive staff has essentially taken control of E*Offering to whip it into shape by slashing its staff by half, to 40 people, automating more, and moving most of its operations to E*Trade's headquarters.

But that doesn't fix the real problem: Online investment banking has been slow to take off. Online sales are a mere % or so of sales of all IPO shares. In 1999, only about three of the 544 IPOs were lead-managed by online investment banks, according to Thomson Financial Securities Data. So now Cotsakos is trying to persuade companies planning to go public to use the online route. His pitch: Because E*Offering does business online, it can get deals done more cheaply—and charge 5% of the amount raised in an offering instead of the usual 7% traditional investment bankers charge.

Those numbers may be enticing, but it's a tough sell.

Startups want to align themselves with proven Wall Street winners like Goldman Sachs & Co. Cotsakos vows he won't give up. Now we'll see if he can outgun the industry giants on their home turf. — Louise Lee

by HOWARD GLECKMAN

The Tempest Over Taxes

The "too complex" excuse won't hold long

To tax or not to tax? That's one of the hottest questions in the e-commerce arena. On one side, governors and mayors argue that an avalanche of untaxed e-sales will drain billions from their coffers.

On the other side, Internet businesses and their political evangelists fret that new levies could quash the online revolution.

Until recently, the antitax camp held the upper hand, thanks to sympathy in Congress and some key Supreme Court decisions. But Internet businesses have also wielded a secret weapon—the fact that existing technology can barely handle tax collection on the billions of bits of information that make up Internet sales. Improved tax software from a host of companies will do a better job. But as e-commerce expands and evolves, fresh complexities will continue to challenge even the smartest software.

BURDENSOME. Complexity is not a new defense in the long struggle by businesses to thwart expanded sales taxes. In 1992, the Supreme Court ruled that mail-order companies couldn't be forced to collect sales taxes in states where they did not maintain a physical presence—meaning stores, warehouses, and the like. The courts said it was too great a burden for companies to navigate the thousands of different tax rules imposed by 7,500 states, cities, counties, and special authorities that tax purchases.

Figuring 7,500 tax codes may be the easy part

Well, the Internet is subject to those precedents—but the situation is even more complicated. In the e-commerce world, physical presence may be nothing more than software on a computer server. Products may be streams of digital bits. And payments could turn up as digital cash—untraceable to billing or delivery addresses that normally determine who pays a tax, and where.

Before grappling with these new issues, remember that Net commerce is already taxed. Despite a three-year moratorium on new levies, most states require buyers to pay tax on the goods they purchase online from companies located in that state. And many merchants who collect these taxes rely on software from vendors such as Taxware International Inc. in Salem, Mass., and Vertex Inc. of Berwyn, Pa.

But so far, the Supreme Court has exempted merchants from having to collect tax in states where they have no physical presence. That has been a boon to dot.com companies and their customers. And it has inspired companies such as Barnes & Noble Inc. to spin off their Net operations so they can court online customers without worrying about physical presence rules—except in states where they are headquartered.

Now, state governments are uncomfortable with the status quo. They weren't terribly troubled about lost revenues when e-commerce was in its infancy. Even in 1998, according to Ernst & Young, states missed out on about $170 million worth of taxes on online purchases, barely 0.1% of total sales-tax collections. But as e-commerce rings up more sales, the loss of those revenues will be harder for states to ignore.

HALF-BAKED. There are many obstacles, however, to boosting cross-state collection. One of the biggest is the jumble of product definitions and codes employed by different tax authorities. In New York, large marshmallows are considered taxable snacks, while little marshmallows are tax-exempt food. Plain doughnuts are tax-exempt in some states while jelly-filled ones are taxable. Clothes are taxable in most states. But in nine, they are not. And four of those exempt handkerchiefs.

No software today keeps track of all these absurdities. So retailers must manu-

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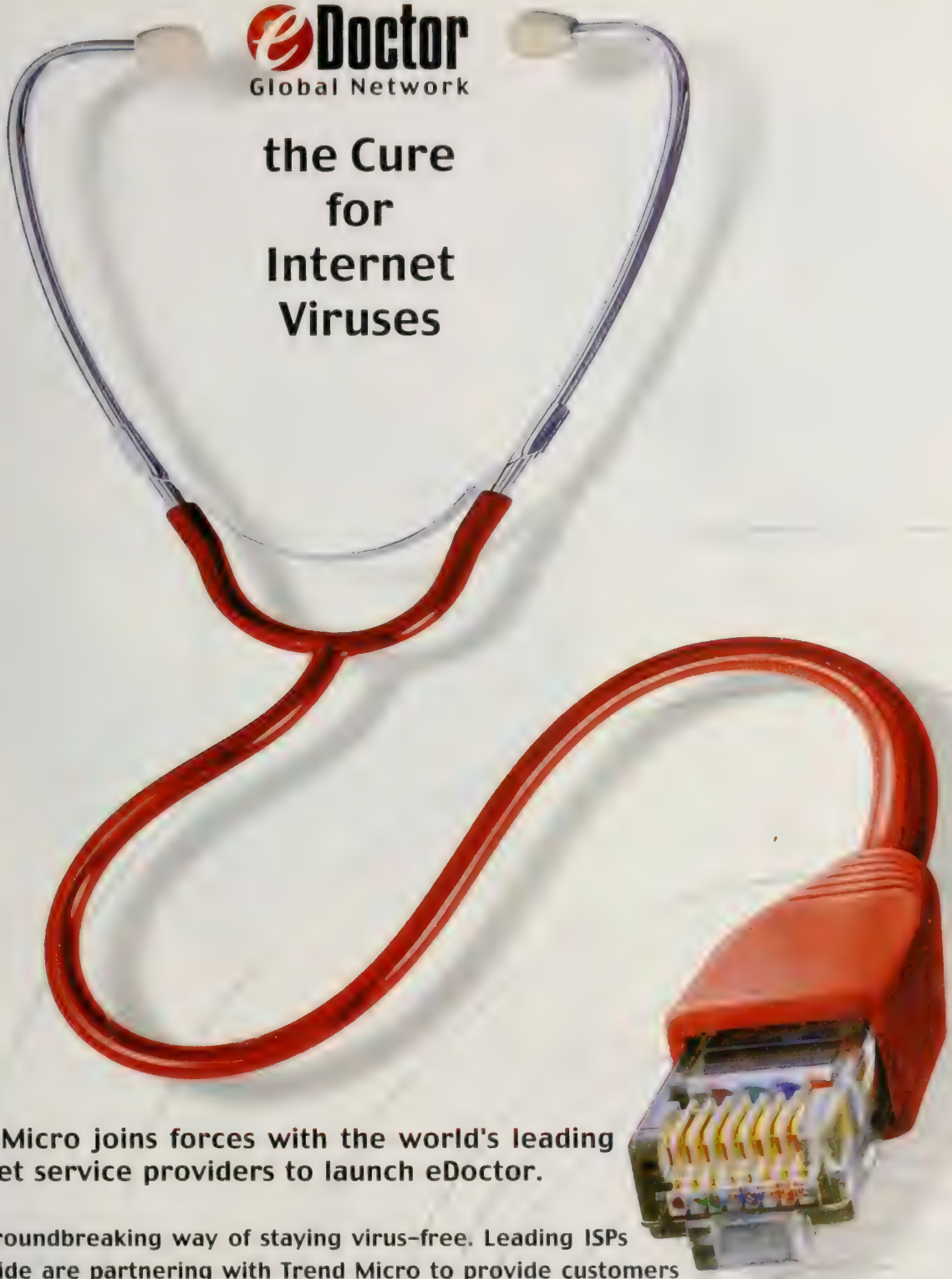

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ally match their products with their software vendor's categories. Federated Department Stores Inc., for example, has 40 codes for clothing that it must squeeze into Taxware's 12 categories. "That makes it very expensive and time-consuming," says Federated's tax counsel, Frank G. Julian.

Determining location and tax rates for purchasers is also a task. Software from Taxware breaks the U.S. into ZIP codes, assigns one of 1,500 product codes to goods and services, and then determines the tax for a particular product purchased by a buyer residing in a particular location.

Unfortunately, today's ZIP-code based approach is crude and can't account for the fact that in many states taxing districts don't match U.S. Postal Service codes. New software systems may succeed in putting every address in the right tax district. But what address should the software look for? Physical goods can be tied to the location to which they are shipped. But what if the product is a scrambled burst of bits that the buyer's personal computer downloads and reconstructs as a tune from Red Hot Chili Peppers? If the music is purchased by credit card, it's easy to figure the tax based on the billing address. But if the payment is in digital cash, such an address won't be available.

Governors hope software will resolve all these issues. And soon, to facilitate tax collection by merchants, states may start paying businesses' costs of calculating and collecting sales taxes. Governors have also vowed to simplify their agonizingly complex tax laws.

These steps will spur enhancements to tax software, which are already under way. Today, to keep its clients up to date on local regulations, the best that Taxware can do is to send merchants monthly computer disks with updated tax data. Later this year, Taxware plans to install its software on a remote server, which corporate clients will access over the Net. This will enable Taxware to immediately adjust its programs as states and cities revise their laws. Vertex may expand its own tax databases so they can be used as a platform for sophisticated collection tools. And if states actually start simplifying their arcane laws, developers will redouble their software efforts. Says Lisa Gilbertson, director of tax and financial issues for the Internatio Mass Retail Assn.: "If we get uniform software should be able to handle [tax for any size business."

Governors have vowed to simplify their tax laws, and may even pay businesses' costs of collection

Software alone won't do the job, s Dan Bucks, director of the Multi-State Commission, an organizati that coordinates activities of st tax authorities. "You'd have link sophisticated tax calculati software with a dependable and secu telecommunications and computer infr structure," says Bucks.

On that score, larger computer co panies are starting to weigh in with in grated tax solutions. IBM, for example, testing a collection and remittance serv with Danish toymaker Lego Group. I Blue is still not ready to discuss its expe ment in Europe. But sources familiar w the test say the software will split the c of a product, remit the value-added tax government authorities, and transfer t rest to Lego. Although the U.S. tax stru ture is different, such technology could applied to American sales taxes as well.

TAX-MINING? Sophisticated new technol gy could substantially tilt the debate ov cross-state Internet sales taxes. With so ware advances in mind, Utah Govern Michael O. Leavitt and the National Go ernors' Assn. have proposed en ploying "trusted third parties" take over tax collection chor from individual e-tailers wh handle it today. Such compani would have the ability to pull the required information off central computer and direct t payments to the proper state.

But here, too, technology creates ne problems even as it solves old ones. Co sumer groups worry that third-party t collectors would gather detailed informatic on buyers and what they purchase. Suc data, aggregated on a single server, woul become a tempting target for criminals— marketers hoping to buy the data.

While these hurdles are high, they ce tainly aren't insurmountable. An states seem determined to mak it worth the software develop ers' efforts. But once the glitch have been ironed out, politician may find themselves back at th start of a long and circular co nundrum: Do we want to tax e commerce at all? ◉

QUESTIONS SALES TAX SOFTWARE MUST ANSWER

IS THIS PRODUCT SUBJECT TO A TAX?

Taxing jurisdictions have thousands of definitions for products and services that are subject to sales taxes. The software must navigate among all these local interpretations.

IS THIS BUYER OBLIGED TO PAY A TAX?

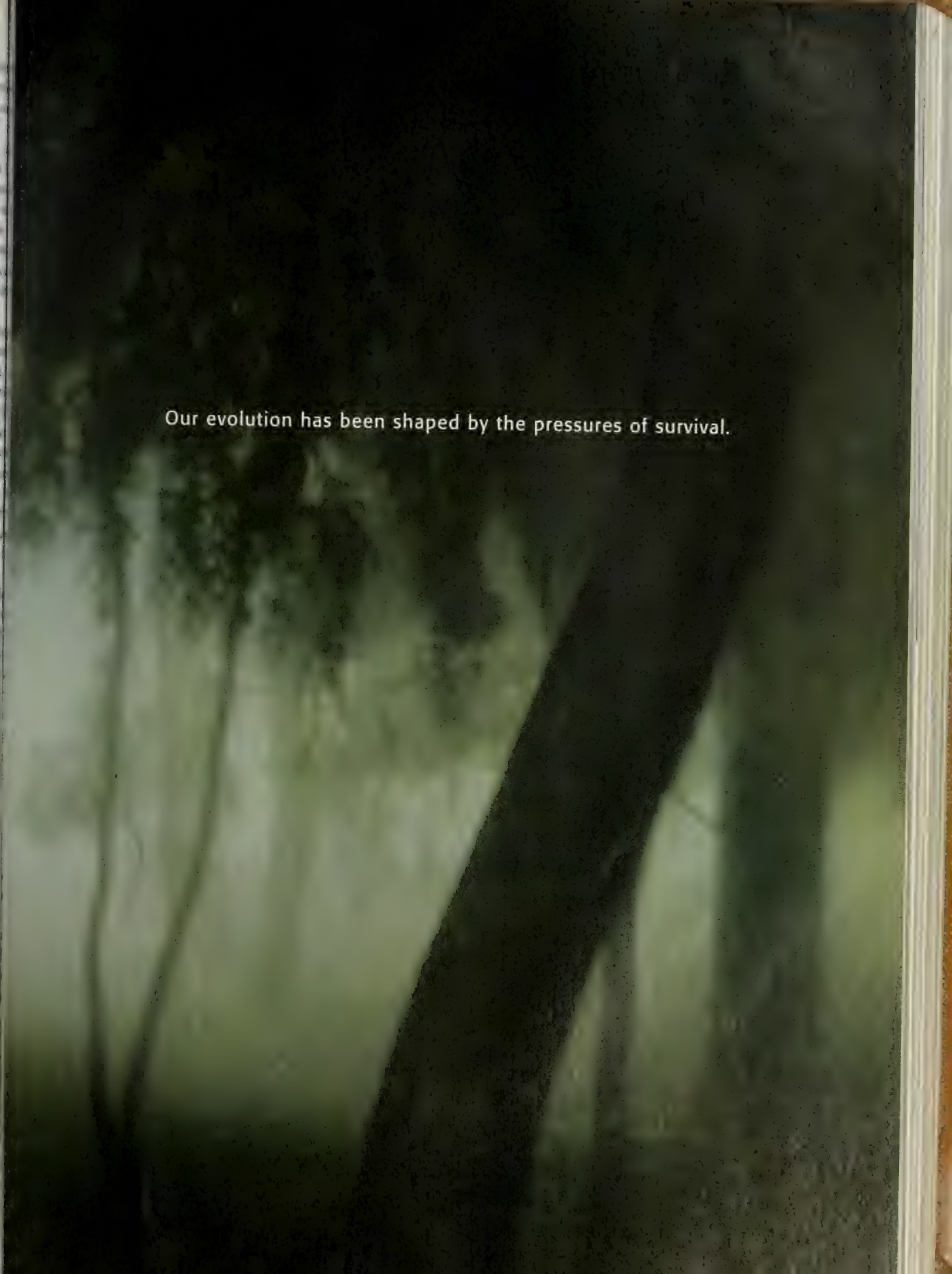
Billing data and delivery addresses help determine who must pay. But there are other challenges. Charities and businesses that buy goods to resell, for example, get state exemptions.

WHAT IS THE PROPER TAX RATE?

Rates vary depending on the taxing authority and the type of product. About 7,500 jurisdictions such as states, cities, counties, and special taxing districts impose sales taxes, juggling different rates and definitions of what's taxable.

ARE THERE ADEQUATE SAFEGAURDS TO PRIVACY?

Merchants have access to sensitive information on personal buying patterns. If state governors turn collection responsibilities over to private companies, the software they use will have to strip out buyers' names, but still correctly calculate the tax.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Broadwing

by STEPHEN BAKER AND WILLIAM ECHIKSON

Europe's Internet Bash

ITS GIDDY DISCOVERY IS LIKELY TO TURN SERIOUS AS RIVALS RACE TO TAP A HUGE NEW MARKET

The music is blasting, and the crowd of hundreds at Brussels' CyberTheater is young and hip. But when the music softens and the spotlight focuses on the stage, it's no rocker that steps forward but an Internet entrepreneur—the newest brand of star in Europe. So begins the monthly program at this so-called First Tuesday meeting, a hobnobbing event for entrepreneurs and investors. By the end of the evening, Europe's Web-wannabes—a forlorn bunch just a year ago—are celebrating their wild popularity. "It's a gold rush here," raves Karel Wouters, who hopes to launch a company producing e-mail software for mobile phones.

Europe, a Johnny-come-lately to cyberspace, is celebrating its first Internet bash. Money is everywhere, and investors can't find enough companies to throw it at. Suddenly, French chefs, Finnish rockers, even European philosophers are launching portals and making noises about initial public offerings in the new exchanges, Germany's Neuer Markt and France's Nouveau Marché.

In this frenzy, try, just try to find a developer of software for the mobile Internet who hasn't landed at least one round of venture capital. "Two years ago, an investment of $250,000 was a lot of money," says Roel Pieper, who heads up Europe for Insight Capital Partners, a Denver venture capital firm. "Today, it's nothing."

EXPLOSION. But Europe's celebration is likely to take a serious turn as competition mounts. Europe is the New e-World. In just the past year, the number of Europeans racing to the Net has surged 100% as businesses and consumers alike have found that its lightening speed and vast reach are opening new vistas. Suddenly, shoppers in Paris are heading to the Net for wine and cheese. But that's just the tip of what could be a huge transformation. Companies from KLM Airlines to BP Amoco are starting to use the Net to rethink their businesses—linking up with suppliers and customers, collapsing time and space, while cutting costs every step of the way. E-busi-

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PHILIP BROOKER

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ness transactions in Europe, a piddling $15 billion last year, are expected to explode to $178 billion in just two years, according to International Data Corp.

That's why waves of America's powerful online merchants and Net technologists, bolstered by their fabulous market valuations back home, are sailing eastward, to the new Net market in the Old World. They're opening offices in London's Canary Wharf, commissioning market studies in Copenhagen and Berlin, and buying billboards in Barcelona.

Meanwhile, Europe's own heavyweights, from Germany's Bertelsmann to Spain's Telefonica, are raising billions with Net initial public offerings of their own. Their goal: to stake out their home turf, crushing giddy upstarts and American interlopers alike. The result will be a dramatic ratcheting-up of competition on Europe's Web, a process that will create a handful of champions and turn legions of pretenders, big and small, into takeover bait.

Looking for odds? Amazon.com and eToys Inc. may be riding high on their home turf. But America's cyber dream teams are no slam dunk in Europe. Some of the greats, including America Online Inc., already have stumbled on the Continent. Even U.S. online pioneers can be slow to grok what's happening in Europe. Online auction giant eBay established its European outpost just six months ago, years after some local operators had been wheeling and dealing (page 48).

PORTAL BATTLES. It's no easy feat, after all, to master a market fractured into three-dozen languages, a handful of currencies, a crazy quilt of laws, and convoluted consumer practices, some dating back to Medieval guild laws. What's more, Europeans are racing to route e-commerce through cell phones. Within two years, more Europeans could be surfing through a Web phone than a PC. This means that the crucial portal battles coming up in Europe may be waged on the tiny screens of phones, where Europe's phone companies, from Vodafone Group to Sweden's Telia, have a running start. And if Europe steals the march on America in the mobile Internet, it could not only catch up with the U.S. in e-commerce, but leapfrog, just as it did with cell phones. (page 50).

Yet Europe's champs aren't shoo-ins either. They may know their markets, but many of them are struggling through e-business 101. The Scandinavians, coming from the densest and most advanced Net market in Europe, are old hands. But elsewhere, newbies predominate. "We know how to get shoppers to click through and become paying customers," says Clive Mayhew-Begg, international vice-president at CDnow Inc., the leading U.S. music site that is just now wading into Europe. "Most of the Europeans haven't learned that."

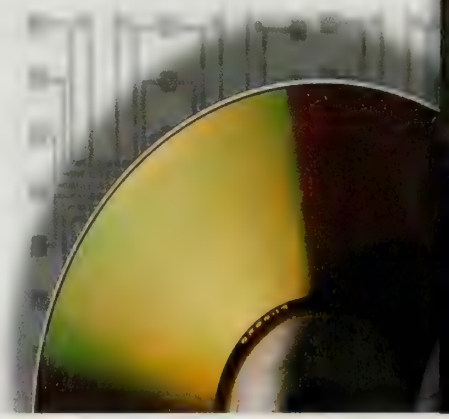
Europe is the logical next step for the U.S.-bred Internet revolution. And what a prize it offers. Its economy is as large as America's. And its population, if you stretch to the Russian border, is larger by 100 million potential consumers. Yet long punished by sky-high local phone rates and discouraged by the dominance of English on the Internet, Europeans have been slow to jump online. Even today, following a year of startling growth, only 13% of Europeans are online at home, compared with 43% in the U.S. And while American consumer e-commerce is blossoming into a big-time market, reaching $31 billion in 1999, Europeans are some two years behind, buying only $5.4 billion worth of goods online, says Gartner Group Inc.

Europe is racing to route e-commerce through cellular phones. If it steals the march on the U.S. in the mobile Internet, it could leapfrog the Americans in e-business

But in business-to-business e-commerce, Europe's gaining ground much faster. Boosted by the new common currency, and far less hindered by the cultural and language issues that bog down consumers, French auto parts giant Valeo, for example, is not only moving all of its supplier and customer relations onto the Web. It is also pondering launching an investment fu focused on e-commerce ventures, s sources close to the company. Meanwhi Scandinavian companies already are movi at a faster pace than Americans. And els where, as in Germany's auto industry, ma ufacturers boasted sophisticated electron links with even tiny suppliers long befo the Net. Forrester Research predicts that series of triple-digit growth years will dri combined business and consumer e-com merce in Europe, to $1.6 trillion by 200 half of the American total.

So who's going to mine this treasur For many American companies, Europe the first foray abroad in a strategy designe to take them around the world. After a even niche players in America, Autobuy tel.com and Ask Jeeves Inc., for exampl have won their multibillion-dollar mark valuations with the expectation that they' creating global brands. But are they? Europ is the first test. And if they get whippe there, the market will likely punish ther and cast about for other heroes.

For Europeans, the situation is perhap more dire. From retailing giants Carrefou and Kingfisher to Europe's biggest phon company, Deutsche Telekom, the Internet a pass-fail exam for the New Economy.



Europe's NEW Economy

The Internet is a pass-fail exam for Europe's New Economy. Not all giants are shoo-ins, and in some area newbies predominate

ese companies don't mount a strong Web owing, they'll likely fade into history as th century relics. "Europeans must fight stay on the map," says Pier Carlo Falot- president for Europe at Oracle Corp.

There's a lot of work ahead before Eu- pe functions as a single electronic market. Il Nuti, Cisco Systems Inc.'s president for urope, found that out the hard way. From s PC in London, he shopped over the olidays on Harrod's Web site for his top ecutives around the Continent. But when tried to dispatch the baskets of luxury ods, from caviar to foie gras, he found at import regulations got in the way. "So had to hunt for a different Web site in ery single country, and make out a dif- ent order," he says. "It took me hours."

Despite these tangles, Europe's Net is booming business for Cisco, IBM, and e other companies building it. A dozen ephone startups, many of them nanced by American junk bonds, e racing to wire the Continent. ew York-based Viatel Inc., for ex- nple, is linking 20 European cities th 4,350 miles of ber-optic cable, all it linked through fat ocean cable to e U. S. "We're go- g to provide the bandwidth in Europe, and people will come up with content to fill it," says Michael Mahoney, Viatel's CEO.

Who's going to fill all that fiber with content? In the tiny niches are the Web sites in Danish, Catalan, and Dutch. Sure they're small, but they reach several million rich and wired consumers. Towering above them are the national phone companies. They are powerful Internet service providers, and they have a lot to say about a crucial element in their markets: the cost for local phone calls.

Then there are the Americans. AOL arrived in Europe in 1995, a transatlantic emissary from the New Economy. But Europe has been one rough ride. Early on, the American champ entered into a 50-50 joint venture with media giant Bertelsmann. It soon became clear, however, that a company with a star-spangled name and a big German partner is no easy sell in, say, France. Worse, AOL learned to its dismay that Europe's telephone giants could subsidize their own ISPs by offering cheap phone rates to their Net customers. Early last year, AOL sued in Germany for equal treatment, getting scant satisfaction.

By that time, an even greater menace was rising in Britain. In late 1998, an electronics chain called Dixons started handing out free diskettes, AOL-style, for its Internet service. But there was one difference: Dixons' Freeserve was free—unless you

ERMANY

Deutsche Telekom: lecom giant runs Europe's gest ISP, T-Online, and vns Europe's biggest cable eration.

ntershop: East German artup is one of the hottest Europe, selling software at helps companies set up line shops.

SAP: German software ehemoth was late o the Net. But with ySAP.com it hopes to be- ome a Web portal.

RANCE

Vivendi: Conglomerate s pay-TV, an ISP, mobile ones, film studios the whole multi- edia mix.

- **FNAC:** Legendary music and book retailer is making a clicks-and-mortar play against Amazon, CDnow, and Sweden's Boxman.
- **Chateau Online:** French champagne and foie gras for the e-masses.
- **Microsoft:** Software king failed to win a place for its Windows operating system on Europe's mobile phones. Plan B: A joint venture with Ericsson.

BRITAIN

- **News Corp:** Rupert Murdoch's media empire needs distribution for its content. One big hope is digital TV.
- **First Tuesday:** Informal club started in Britain that draws entrepreneurs and venture capitalists. It is spreading like wildfire across Europe.
- **Yahoo!:** Portal's local country and language sites are winners everywhere except Sweden.
- **eBay:** Auction site started late and faces strong national competition throughout Europe.
- **Amazon.com:** Online bookseller is holding its own against national sites in Germany and Britain, but expansion into smaller language markets is tough.
- **Ask Jeeves:** Search engine enters Europe with local joint ventures. It will keep its trademark British butler brand, only substituting in France a beret for the top hat.

ITALY

- **Tiscali:** Italy's free ISP was a hot IPO. The question now: How to make an ISP a big business in a country where only 7% of the population is online.

SPAIN

- **Terra Network:** Collection of ISPs in Spain and Latin America went public, marking Europe's splashiest Internet IPO yet—briefly flirting with a $30 billion valuation.
- **Letsbuyit.com:** Reverse auction site is spreading quickly through Europe, and giving rise to a wave of imitators.
- **Ericsson:** It's building transmission stations to run the mobile Internet and is teaming with Microsoft to develop a browser and a portal.

NETHERLANDS

- **United Pan-European Communications:** Cable company offers high-speed Internet access and has created an ISP, Chello.

FINLAND

- **Nokia:** Finnish star rules the world of cell phones. The challenge is to hold on to leadership as phones morph into computers.

LUXEMBOURG

- **AOL:** America's leading ISP is battered by national phone champs in France and Germany, and stumped by free Internet craze pioneered in Britain.

BELGIUM

- **FreeMarkets:** This aggressive B2B auction site faces no homegrown European competition.

counted the charges for the local calls to access it, part of which the phone company kicked back to Dixons. In just months, Freeserve catapulted past AOL and others to become the No. 1 service in Britain.

In the past year, free access has jumped the Channel and taken Europe by storm. It has fueled a binge of computer purchases and has helped double Europe's Net population to 34 million. In the process, it has created new Net powers, including Italy's Tiscali, the Netherlands' World Online, and a host of sites in France and Germany.

This means that AOL, which despite its problems is still among the leaders throughout Europe, is likely to be facing rich and focused ISPs in every market. The new president of AOL International, Michael Lynton, says that the merger with Time Warner Inc. will provide the company with brands and content to battle on the European Net. "The music and the film business and CNN are all very strong in Europe," he says.

Megabrands such as AOL—or CNN—still leave plenty of niches uncovered. Netherlands native Michael Kraland, who runs an investment company in Paris, launched a Dutch-language investment Web site, IEX InfoExchanges, a year ago, offering stock tips and analysis. Now, Kraland runs the second-biggest financial site in Holland.

Bigger portals, anxious to expand, will doubtless be shopping for niche sites such as IEX. At the same time, they must prepare for the next frontier of Europe's Net: Internet access through a cell phone. The phones, along with other portable devices, should expand the Net-surfing population dramatically—since cell-phone subscrisptions outnumber online computers 3 to 1.

In the mobile battle, Europe's phone giants have the upper hand. From Vodafone to Telecom Italia's wireless company, TIM, developers are preparing "mobile portals" for the smart phones coming out this year. The phone companies want to be the AOL and Yahoo! of the Net. With their mini-portals, they will offer a host of services, from portfolio updates to e-commerce.

There's only one complication: The fixed portals are all eager to occupy the same precious spot on the phone. Indeed, it's with an eye to developing a mobile browser that Microsoft signed a joint venture with Sweden's Ericsson in December. Yahoo and AOL also are maneuvering. And Nina Brink, CEO of WorldOnline, is busy negotiating mobile-portal deals. "We understand the importance of telephones" more than the Americans, she says.

Europe's mobile Internet could spread even more quickly into the workplace. Software powers such as Germany's e-commerce superstar, Intershop, as well as Oracle and SAP, are hurrying to stretch out their programs linking suppliers and cus tomers all the way to the cell phon This would enable a salesperson check inventories on the fly, or de with contractors simply by punchin in an order from a building site for ton of cement.

Meanwhile, European startups a stitching business-to-business lin across borders. Alexander Straub, German Rhodes scholar, got the ide for a B2B business while working summer job at Goldman Sachs & Co. i London. Within months he launche Mondus.com, a portal that hunts dow goods and services for business customer In less than a year, he has raised $60 mi lion in venture funding and landed 11,00 business customers.

Other e-merchants are focusing o where they see big opportunities. In th auto market, for example, Europeans rarel shop across borders. And car companie exemption from antitrust laws in distrib ution has led to price differentials of up t 40%. "The Internet can blow this systen apart and find the best price," says Davi Dehaeck, CEO of Auto3000.com, a Antwerp-based online car site.

That doesn't sound like much, but th introduction of comparison shopping across the Conti nent could well wrenc apart commercial pattern cobbled together over cen turies. Esther Dyson, chair man of EDventure Holding thinks so: "I don't think Europe has real ized yet how subversive this is going t be," she says. "It will disrupt the Estab lishment and completely shift the balanc of power."

That could be. But getting blown away by America's Net economy woul inflict much the same damage, and with none of the fun. By throwing their own Internet party, the Europeans, cel phones in hand, are stampeding onto their own large expanse of cyberspace The thundering will be felt on both sides of the Atlantic.

Contributing: Andy Robinson in Madrid

The New Old World

Country	Cell Phones*	Internet Access*	Online Sales**
France	28%	10%	$9.20
Germany	21%	15%	$16.30
Italy	50%	8%	$5.40
Sweden	55%	48%	$86.00
Britain	32%	23%	$26.00
U.S.A.	25%	43%	$112.00

*% OF POPULATION **PER PERSON AND IN U.S. DOLLARS DATA: FORRESTER RESEARCH INC., GLOBAL INFORMATION, INC.

Free access has taken Europe by storm, fueling a binge of computer purchases, luring millions to the Net, and creating new Web powers

e.biz online

To learn more about the growth in Europe, read a Q&A with industry pioneers including venture capitalist Roel Pieper at **ebiz.businessweek.com.**

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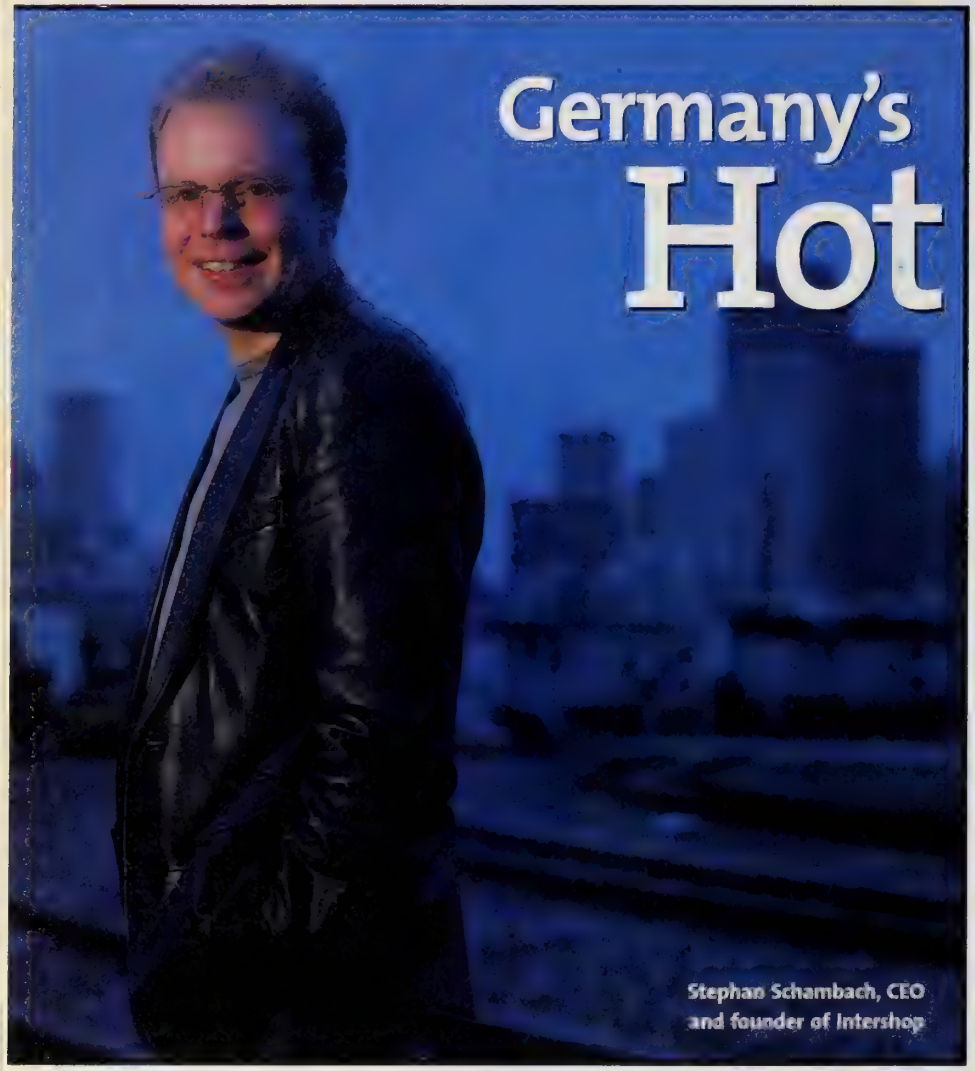

Stephan Schambach, CEO and founder of Intershop

Germany's Hot Star

by WILLIAM ECHIKSO

Intershop eyes the big leagues for its e.biz software

America loves its legends about Silicon Valley startups. The tiny Palo Alto (Calif.) garage where Bill Hewlett and David Packard got their start has been recognized as an official California historic landmark. Now Europe has its own inspirational counterpart: Intershop Communications Inc. The upstart company's story sounds like a plot for a made-for-TV movie: Young East German with capitalist itch starts e-commerce software company and, against all odds, makes it a hit around the world.

To understand how far Intershop has come, reel back to 1994. Stephan Schambach, just 22 and living in formerly communist East Germany, began developing software allowing small companies to set up basic e-commerce sites. His first office was in an abandoned Protestant parsonage. Today, Intershop is the best-performing stock on Frankfurt's Neuer Markt, soaring from its $15 launch in 1998 to $320 recently, doubling in the past two months alone. Revenues skyrocketed 132% last year, to $27.8 million. And, for Schambach, that's just the warmup. "We want to be the motor for the Internet economy," he says.

His company already is an example for other European Netrepreneurs. It currently ranks third behind such American leaders as Open Market Corp. and BroadVision Inc. in the e-commerce software market, which Forrester Research Inc. estimates will grow from $259 million in 1998 to nearl $5 billion in 2002. "Intershop shows tha Europe has good technology," says Christia Nolterieke of the German Internet researc company Forit.

The bad news for European startups i that Schambach actually had to move t the U.S. to get his company off the ground In 1996, when Intershop's first product wa ready, Schambach packed his bags an moved to San Francisco, some 40 mile north of the heart of Silicon Valley, i search of customers and credibility. Th company's earliest customers were telecon outfits that used Intershop's software to se up Web shops for small businesses.

Now, Schambach is going upmarke with a product called Enfinity, released i October. The new software is aimed a large companies, including customer Hewlett-Packard, and will allow them t take orders from a host of new Web devices such as mobile phones and Palm handhelds. "This new product puts Intershop in the big leagues," says David Truog an analyst at Forrester Research.

But the major leagues are where the competition gets tough. Still, Schambach realizes that Intershop needs to gain credibility in large corporate accounts. That's why he courted Eckhard Pfeiffer, former CEO of Compaq Computer Corp., who signed on in November as the company's chairman. Pfeiffer has the clout to gain entrée to top corporations.

If all goes well, Schambach could achieve the stature of a European Hewlett or Packard some day. His company is no HP yet. But at least it can boast the Silicon Valley stalwart as a customer. And that's a good start. ◉

e.biz online

Check out a Q&A with Intershop founder Stephan Schambach at **ebiz.businessweek.com.**

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Rough Crossing For eBay

WILLIAM D. ECHIKSO

Starting up in Europe, the auction site runs into plenty of cultural roadblocks

Lucky for Pierre Omidyar that he was living in Silicon Valley when he got the idea for eBay. If Omidyar's family had stayed in France, his idea never would have gotten off the ground. It's not a lack of venture capital or Internet audience that would have stymied him. It's the law. Under French regulations, only a few certified auctioneers are allowed to operate. eBay hasn't even opened for business in its founder's homeland.

eBay isn't just facing a Gallic conundrum. The company that pioneered online auctions in the U. S. is late to Europe, and initial efforts so far have been hurt by technical and cultural missteps. Now, European competitors with better knowledge of the competitive landscape have a headstart—and lots of hard-to-duplicate local content.

eBay is trying to catch up. The challenges are great enough to have encouraged Omidyar to return to his homeland. The 32-year-old founder lived in France until age 6, when his parents emigrated to the U. S. But after handing over the day-to-day reins to former Hasbro Inc. executive Margaret Whitman, Omidyar has returned to Paris. He has come to rediscover his roots—and help develop eBay's European strategy.

But eBay didn't set up shop until six months ago, hiring Dutchman Michael van Swaaij away from America Online Europe. To ramp up quickly, van Swaaij acquired a German upstart called Alando and inaugurated eBay's own site in Britain. But the British online auction company QXL, started in 1997, already is a Net veteran. Other auctioneers, such as Sweden's Bidlet and Germany's Ricardo.de, also established themselves long before eBay.

Omidyar must contend with Continental laws and tastes

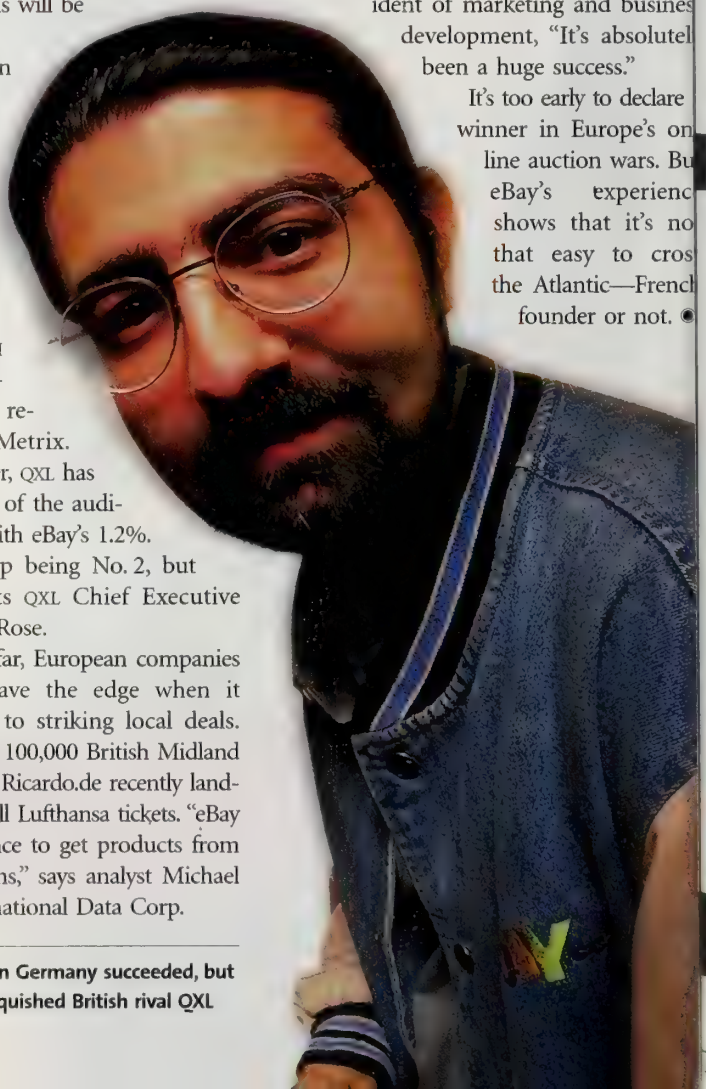
Once in Europe, eBay didn't get off to a glitch-free start. It opened shop still pricing in dollars, and the company has yet to install software to calculate European Value Added Taxes. eBay says that both problems will be fixed soon.

But the German acquisition has paid off. eBay is No. 1 in Germany, reaching 5.4% of the Net audience, compared with 4.4% for Ricardo.de, according to MMXI Europe, a subsidiary of market researcher Media Metrix. In Britain, however, QXL has the lead, with 5% of the audience, compared with eBay's 1.2%. "eBay will end up being No. 2, but not more," insists QXL Chief Executive James Rose.

So far, European companies also have the edge when it comes to striking local deals. QXL has auctioned 100,000 British Midland airline tickets, and Ricardo.de recently landed a contract to sell Lufthansa tickets. "eBay won't have a chance to get products from national champions," says analyst Michael Arnbjerg of International Data Corp.

The American auction giant insists th it can conquer Europe, just as it did th U. S. Lots of goods, such as electronic and computers, can be sold across Euro pean borders. And for more local item such as soccer cards, it will set up regior al sites in Spain, Italy, and—once leg uncertainties are removed—France. Fina ly, eBay boasts it has far more items fo sale on its European sites—about 1 millio in Germany, for instance. By that mea sure, insists Steve Westly, eBay's vice-pres ident of marketing and busines development, "It's absolutel been a huge success."

It's too early to declare winner in Europe's on line auction wars. Bu eBay's experienc shows that it's no that easy to cros the Atlantic—French founder or not. ●



Omidyar's strategy in Germany succeeded, but eBay hasn't yet vanquished British rival QXL

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Reach Out and Sell Someone

by STEPHEN BAKER

E-business by mobile phone means marketers can talk to consumers nonstop

At first, using the phone to get a parking space sounds like a truly wacky idea. Think of it: Winding your way through Frankfurt, you simply press a button on the large-screen cell phone on your dashboard. The smart phone system locates you, finds a parking place nearby, then zaps you a map to guide you right to it. And you pay for the service on your phone bill.

With time, though, things could get ugly. What if auctioneers barge into the parking business? You could be wrestling with rush-hour traffic while bidding for spaces, the phone's electronic voice repeating, "Press enter if you are willing to pay six euros per hour." And when you finally win a space, you may have to scroll through scads of electronic coupons for nearby shops to get to the map.

Exciting and scary at the same time? That's mobile e-commerce—European-style. It's the long arm of the Internet that will soon extend the electronic marketplace right into hundreds of millions of pockets, purses, and cars—and all of humanity's waking hours. It promises mind-boggling conveniences. Imagine your phone directing you block by block, either with a voice or a blinking dot on a map, as you walk through Istanbul's crowded Kasbah. Suddenly, it interrupts itself to beep the alert you've requested: Microsoft Corp. shares have dipped below $100. You punch a couple of buttons to purchase 100 shares and continue the guided stroll.

As cell-phone makers head for the Net, the prospect of untethered Web businesses is turning some of Europe's biggest companies frothy. It's largely the hope of hosting tiny, customized e-commerce portals reaching millions of Europeans that's fueling Vodafone AirTouch PLC's $135 billion hostile bid for German cell-phone giant Mannesmann. The same force has turned mobile-phone powerhouse Nokia into Europe's most valuable company. And it was the fear of losing out on this monster market that led Microsoft, in the dead of winter, to trek far north for a joint venture to develop Web phone browsers with Sweden's Ericsson. "This will be the largest market in the world," says Vodafone CEO Chris C. Gent.

Of course, it won't happen without struggle. Phone companies must come up with simple and speedy services, and find a way to sell ads without annoying users. In the next year, as the mobile Internet takes root, look for glitches and slow connections. "We'll hit our trough of disillusionment late this year," predicts Nigel Deighton, an analyst at the Gartner Group.

WINNING FORMULAS. But with all the companies trying, some will get it right. And when winning formulas spread, the numbers promise the force of a marketing *tsunami*. Within four years, some 350 million people worldwide could be using the mobile Net, according to International Data Corp. And instead of waiting patiently, desktop-like, for shoppers to sit down and log in, the mobile Net will be riding shotgun through shoppers' lives, flashing, beeping, and vibrating with buying opportunities.

Make no mistake, mobile e-business is radically different from its plugged-in kin. This is not shopping for books, or browsing sites for ski weekends. Far more than providing new access to the old Web, mobile technology will create a brand-new one.

The key, naturally, is movement. With technolo-

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gy that follows people, and finds them, mobile e-commerce could well broaden the online marketplace to include millions of local businesses—butchers, barbers, even dry cleaners—that would never dream of buying an ad on Yahoo!

Here's how it will work: Picture a butcher shop in Paris, circa 2004. When customers come in, they're offered a discount for waving their phone through an infrared sensor that records the telephone's number. Business is brisk throughout the day. But near closing time, the butcher is anxious to get rid of some prime cuts of Argentine beef. He sends out a special offer to the phones of customers who have ordered Argentine beef recently—and who happen to be within, say, three blocks. The mobile network finds these customers and charges the store a couple of cents for each message delivered—though the Bordeaux wine ad on the message might pick up half the tab. Customers who buy online get a discount, and the cost of the steak comes out of the debit card in their phone.

It should be a year or two in Europe before butcher shops hit the mobile Net. For now, the Continent is just taking its first steps using the tiny screens, and most of the e-commerce sites are hand-me-downs from the fixed Web, principally stock trading. But by the end of this year, European phone companies will be upgrading their systems to an Internet technology called GPRS (General Packet Radio Service). This technology will permit cell-phone customers to remain online whenever the phones are on. That opens the door to customized messages pushed to each individual phone.

Within the following year, businesses and customers could be in contact as never before. How? Global positioning. Satellites will locate cell-phone users to within 25 meters. "That's when it starts getting very exciting," says Per Mosseby, the 25-year-old CEO of Sweden's Melody, a software company creating mobile applications to help companies deploy far-flung sales and maintenance forces.

Already, the biggest names in techdom are lining up for their piece of the action. From Intel Corp. to Oracle Corp., Silicon Valley giants are partnering with mobile leaders in Scandinavia. In early January, when Vodafone announced plans for its mobile portal, to be released this July, it presented a *Who's Who* of eager technical partners, including Nokia, Ericsson, IBM, and Sun Microsystems. At first, the Vodafone portal will provide a menu of basic data services for users, from e-mail to weather reports. But in time, Vodafone plans to turn the portal into an omniscient companion for customers—and a marketing dream for advertisers.

Consider the muscle that a mobile portal gives retailers. Charles Schwab & Co., the discount broker, already has established itself as an Internet heavyweight with some 3 million online accounts. Now Schwab has signed up for a place on Vodafone's portal. If the Vodafone-Mannesmann deal goes through, Schwab's place on the portal could link it with 48 million customers worldwide.

OLD HAT. Legions of developers, from Helsinki to Seville, are creating the applications for this new branch of the Net. In cutting-edge Finland, banking and stock trading on cell phones is old hat. But Gigia, a software developer, is working with gaming companies to develop mobile gambling applications—with jackpots pouring right into the mobile phone's debit card.

And outside of Paris, a French Canadian named Jean-Michel Durocher, chairman of startup Webraska Mobile Technologies, is developing a vast phone-based Internet navigation system. The early version, already out on the limited supply of Internet phones, displays traffic patterns in Paris. Eventually, its tiny maps on the phone screen should help travelers figure out not only where they are, anywhere in Europe, but which road or metro line to follow to their destination. "We're even including the bike paths in Holland," he says. Like most mobile Netrepreneurs, Durocher sees his product generating loads of transactions. He imagines movie theaters advertising their English, French, or German offerings—according, naturally, to the language profile of the traveler. He's even exploring hookups with a phone-parking entrepreneur.

No sign as yet of the auctioneers. But if mobile e-commerce takes off as expected, don't clear your throat too loudly on the cell phone. You might end up buying something. ◉

GOING MOBILE
European companies are the players to beat when it comes to the Net's next technology wave—going mobile. Here are the European players to watch

SONERA
Finnish phone company is a leader in some of the coolest applications, from online stock trading to video games. It was one of the first to create a mobile e-commerce division, Zed, to develop and market new applications. The plan is to spin it off.

MELODY
One of dozens of mobile Net startups in Stockholm, Melody specializes in technologies that locate customers and zero in on them with plenty of e-service offerings. Bigger mobile e-commerce companies in Sweden, like Nocum, have been stock market sensations.

WEBRASKA
French software company is leading in navigational tools for the mobile Web. It's building a database of European geography to steer customers around dikes, over canals, even through the Paris Metro. Next stop for Webraska: Japan.

VIRGIN
British entrepreneur Richard Branson is building a 'virtual' mobile network. It's not spending billions for phone companies, but simply buying wireless network capacity and reselling it to the public. The idea? To lure millions of European telephone users to its network—and then sell them services on Virgin's mobile portal.

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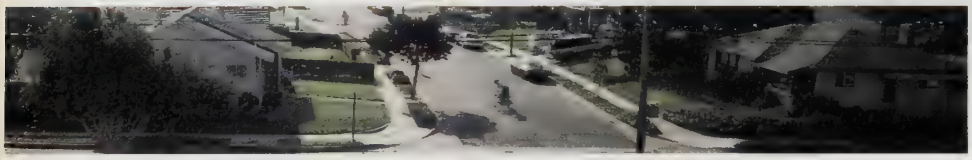

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Europe's Top e.business Leaders

Here they are—the pioneers of the Old World. They represent several countries and many industries, but these 10 people, in outfits ranging from Internet access providers to Web site designers to venture-capital firms to Germany's mighty SAP, have one thing in common: They're transforming Europe's economy, fast

Ola Ahlvarsson | Result Venture Knowledge International

Position | Founder and CEO

Contribution | Helped Sweden lead Europe's Net revolution by creating top pan-European e-tailers such as music shop Boxman and sportswear vendor Sportus.com

Ambition | To turn back the impending American invasion of Europe

Don't be fooled by Ola Ahlvarsson's baby face, curly dark locks, and slight 154-pound frame. The 29-year-old Swede studied karate for 15 years to earn a black belt, then overcame Russian and other more experienced Asian fighters to win the 1997 Kickbox World Champion title in Dubrovnik, Yugoslavia. "I'm a determined guy," he says.

Instead of knocking opponents out in the ring, though, these days Ahlvarsson's considerable punch is focused on becoming Europe's leading e-commerce entrepreneur. He has helped create 20 Web businesses, from an online sports-equipment shop called sportus.com to a business clothing site called dressmart.com. The first of his projects, Sweden's online music CD retailer Boxman, ranks No. 1 in Europe and is planning a highly anticipated initial public offering this year.

Ahlvarsson's ambitions don't end there. This year he expects to help open 20 more sites through his firm, Result Venture Knowledge International, an idea-generation venture that comes up with Web business plans, helps line up funding, and participates in the launch. In return, he gets an equity stake. "When you go to dinner with Ola, there are always hundreds of ideas that pop out, and you have awesome fun," says Johan Sievers, an old friend who is marketing director for ISP Scandinavian Online.

Sweden couldn't be a better market to incubate Ahlvarsson's fledgling Web empire. The tiny country is embracing the Net faster than almost anywhere else on the planet—48% of its population

is hooked up, vs. 43% in the U.S. But because of the small home market and obscure language, Ahlvarsson presses the startups to expand quickly. Boxman is already in eight countries including Germany and France.

Ahlvarsson had better hustle. From U.S.-based CDnow to Fogdog Sports, an online sports-equipment venture featuring hockey's Wayne Gretzky and basketball's Michael Jordan, online retailers from across the Atlantic are gearing up in almost all of Ahlvarsson's markets.

"The Americans, with their secure positions at home and incredible market valuations, can take over almost anybody they want in Europe," says analyst Therese Torris of Forrester Research Inc. in Amsterdam.

The kickboxing champ isn't fretting. For now, Ahlvarsson is counting on his European roots and his headstart. Boxman has been online since 1997, two years before rival CDnow crossed the Atlantic. "Although the Americans have formidable market caps, they may lack the local touch," he argues. His favorite example: an American site called Getgift.com. "That means goat poison in Swedish," he says.

Ahlvarsson comes from entrepreneurial stock—of sorts. His father, originally a plumber, rose through the ranks of the Social Democratic Party to become Stockholm's deputy mayor. Recently, the son persuaded his father to run one of his new ventures—selling services and goods to city governments. Who says old Europe can't learn new Net tricks?

By William Echikson

Tomasz Czechowicz | Poland.com

Position | Chairman

Contribution | Launched Eastern Europe's first portal

Ambition | To become Poland's equivalent of Yahoo! and prove that local portals can survive global competition

It was a wild party last June at a Warsaw nightclub, hosted by the Polish edition of *Playboy* magazine. Buxom bunnies cavorted in skimpy dresses and booze flowed freely. But Tomasz Czechowicz couldn't have cared less. "All Tomasz wanted to do was talk about business opportunities on the Internet," recalls Jerzy Karvelis, then editor-in-chief of Poland's largest computer magazine, *Chip*.

Six months later, Czechowicz and Karvelis launched Polish-language portal Poland.com. Czechowicz, 29, doesn't fear international giants on his own turf. "There will be a few big international portals such as Yahoo! and a local one in each country," he says. "People want local content in local languages compiled by locals." Analysts agree. "National portals survive in Europe if they build good directories," says Therese Torris, at Forrester Research in Amsterdam.

Whether or not Czechowicz can create a money-making Polish portal is far from proven, though. The Net is in its infancy in Eastern Europe, with fewer than 6% of Poland's 40 million citizens connected. Yahoo, a leading portal worldwide, hasn't even bothered to set up an operation in the region because there's so little online advertising there. That doesn't matter to Czechowicz. He's accustomed to carving out businesses before the high-tech elite move in. When communism collapsed in 1989, Czechowicz rushed to set up a PC assembly company called JTT Computer Inc. JTT's sales hit $120 million last year—a solid success in a country with just $2 billion in annual computer spending.

Now, Czechowicz means to reprise that formula on the Net. Two years ago he resigned as president of JTT and started Internet venture fund MCI Management, which in addition to financing Poland.com has invested $1.5 million in other Net ventures, including a Web design firm. At the same time, he's pursuing an MBA. "I still have a lot to learn," he says. But if Czechowicz turns Poland.com into a winner, aspiring portal builders all over Europe could be taking lessons from him.

By William Echikson

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Renato Soru | Tiscali

Position | Founder and CEO

Contribution | Pioneered free Internet service in Italy, spurring growth in the country's sleepy online market

Ambition | To shape Europe's Internet economy by slashing telecom costs and developing new Web services

It took a shopping mall developer from Sardinia to electrify Italy's sluggish Internet market. R nato Soru, 42, launched telecom and Internet startup Tiscali in 1998 with $600,000 of his ow money and the unshakable conviction that Italians would learn to love the Net even though th seemed to disdain personal computers. "The Internet will drive computer sales in Italy, not t reverse," says Soru.

So far, he's spot on. Soru saw what others in his country had overlooked: Net access was too e pensive. The first to introduce free Internet service in Italy in November, 1998, upstart Tiscali forced t high-priced competition, includi Telecom Italia, to do the same. Th more than tripled the number frequent Italian cybersurfers la year, to three million, and hande Tiscali nearly 30% of the market

Now he's looking to move acro the Continent. To fuel that, Sor took his company public in Oct ber. With $140 million in cash fro the initial offering and a mark capitalization of $6.5 billion, Soru now a force to be reckoned wit He already has snapped up telecor companies in France and Switze land. Next, he plans to expand int Spain.

"FREELOSOPHY." Soru admits th he's got to stay one step ahead the competition. For starters, h says, his business model is geare for the next technology wave— integrating phone, data, and mobi services, which allows him to cross sell services. He charges low rate for phone service—and offers extr discounts to users of Net acces services. Abiding by what he cal his "freelosophy," broadband Ne access and phone calls will eventu ally be gratis. And revenues? Now they come from phone service, bu future profits will come from f nancial and shopping services h plans to offer.

Sure, he still faces a host of es tablished telecom giants, but h doesn't mind being David to thei Goliaths. "You don't need muscle you need brains. If you hav brains, you get money," says Soru

Soru's strategy is still a work i progress. But his rivals already hav learned not to underestimate th man who made the Internet blos som in Italy.

By Gail Edmondso

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Mark Schneider | United Pan-European Communications

Position | CEO

Contribution | Turned cable network into high-speed Internet link

Ambition | To build a European AT&T, owning high-speed pipes that go into homes and businesses—and using them to sell everything from Web content to phone service

When Mark Schneider was a boy, his father, Gene, a cable pioneer, was wiring vast prairies, bringing television to America's West. These days, 44-year-old Schneider is doing the same thing, but this time in Europe—a virtual prairie when it comes to Internet access. Schneider, CEO of United Pan-European Communications (UPC) in Amsterdam, is snapping up cable-TV operations and using them to usher high-speed Net access and, eventually, interactive TV, into homes across Europe.

It's the ultimate digital convergence play. A lawyer by training, Schneider came to Europe from Washington five years ago to set up a branch of his father's Denver company, UnitedGlobalCom Inc. United still owns 51% of UPC, but Schneider is running far more than a branch operation. UPC is not only providing Internet access but is also coming up with content, from TV programming in 22 languages to an Internet portal called chello. And by taking advantage of the thick cables, he's offering phone service, too.

That pits Schneider against some of the biggest names in the business: France Télécom and Deutsche Telekom. But Schneider is hardly fretting. With thinly veiled contempt, he accuses the phone companies of dawdling in high-speed Net services. "They're dragging their feet," he says. Here he finds agreement. "The phone companies are in no hurry to roll this out, because it might cut into their own business," says Harry Hobbs, European president of rival Net access provider PSInet.

SLEEPLESS. For his assault on the communications giants, Schneider has a powerful partner: Last winter, as part of an initial public offering, he sold 7.8% of the company for $333 million to Microsoft Corp. The software titan hopes to piggyback its MSN portal onto Schneider's cable backbone. And since the IPO, Schneider has raised a further $2 billion to buy 16 cable businesses around Europe. "This guy doesn't sleep much," says George Nahon, Microsoft's director of Internet & Communications in Europe. The buying spree has tripled Schneider's TV subscription base, to 6 million. And UPC, listed in Amsterdam and on the Nasdaq, has skyrocketed to a market cap of $18 billion, even though its revenues were just $419 million last year.

One big obstacle lies between Schneider and his vast European ambition: Germany. So far, he hasn't been able to win a deal for a piece of Deutsche Telekom's enormous cable-TV business, which regulators are pushing the former monopoly to sell. DT CEO Ron Sommer, he growls, is playing keep-away with the cable business, thwarting would-be competitors by only offering to sell it in small pieces. "I can't blame him," says Schneider, adding that he would "clobber" DT in the phone business if he got his hands on that German cable operation.

Schneider's drive is finally pushing the phone companies to roll out high-speed Net services of their own. That promises to make the battle for Internet customers brutal. No matter who wins, though, much of the credit for wiring Europe will belong to the onetime Washington lawyer working out of Amsterdam.

By Stephen Baker

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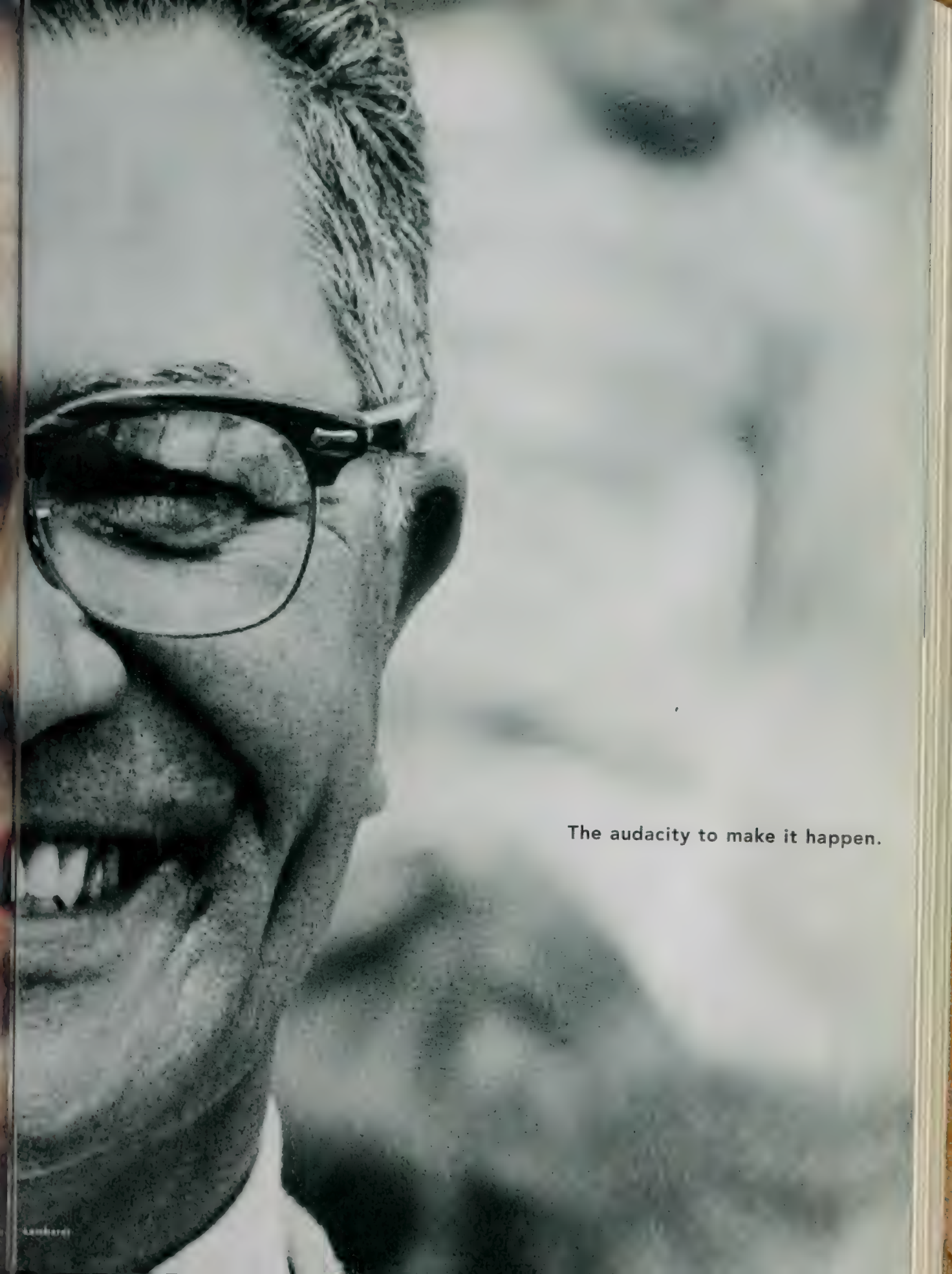
The audacity to make it happen.

Position | Chairman and President

Contribution | Founded Europe's first free online music site

Ambition | To become the world's top music site by linking bands, consumers, and the recording industry

Ernesto Schmitt | peoplesound.com

While hanging out with friends in a London bar in November, 1998, Ernesto Schmitt, 28, came up with the then-novel idea of giving away music on the Web. In a flash, the self-described frustrated disk jockey quit his lucrative job at Boston Consulting Group. In November, 1999, he launched peoplesound.com Ltd., a British site where consumers can listen to music for free or buy and download complete albums.

By the time peoplesound.com made its debut, there were already dozens of free music sites on the Web. But Chairman Schmitt is serving up more—and making his mark on the music industry. His localized German, British, and French sites showcase 4,000 independent European bands—all screened by the company's 750 talent scouts, so it's not cluttered with schlock rock. And to increase customer satisfaction, he dreamed up a unique search system that allows consumers to zero in on just the tunes they'll like.

He's playing a major role in a fundamental shift in the music industry. Thanks to sites like his, musicians no longer have to rely on big publishing companies to distribute their CDs. They can appeal directly to listeners over the Web and get a generous cut of the revenues. "On peoplesound we got a ton of press for free and we're able to sell our music anywhere in the world," says Steven Battelle, lead singer for Stumble, a British punk band.

Convincing investors that you can actually make money by giving music away isn't easy. But Schmitt has attracted the likes of Bernard Arnault's Europ@web. Still, he refuses to take himself too seriously: He jokes about his "Eurotrash" credentials. (Mom's Uruguayan. Dad's German. He grew up in Belgium.) But with an initial public offering and a trans-European rollout slated for later this year, Schmitt is poised to become Europe's 500-pound gorilla of the online music business.

By Kerry Capell

Kurt Hellstrom | Ericsson

Northern Sweden is known for producing straigh talking John Wayne types. Kurt Hellstrom, 56, who from a farming hamlet called Stryksele, is one them. Since stepping in as president of Swedish tel com giant Ericsson on July 7, the Harley-riding Hellstrom h checked a troubling slide in the company's fortunes. After a po beginning of the year, in November he delivered better-tha expected quarterly results: $429 million in net income on sales $5.8 billion. He's totally committed to finishing the turnaround. will be here until they kick me out, I retire, or I die," he says.

Hellstrom is focusing Ericsson on Net-related businesses which it should be a world-beater. Already, the company is t global leader in supplying wireless-phone networks. Now, throug new products and alliances with the likes of Visa International an Microsoft, Hellstrom expects to capitalize as hundreds of millions people begin using supercharged mobile phones and the Internet do everything from booking airline tickets to downloading video

By Stanley Ree

Position | President

Contribution | Helped make Ericsson the world leader in mobile-phone infrastructure equipment

Ambition | To make Ericsson the leading supplier of technology for mobile e-commerce

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Chahram Becharat | Europ@web

Position | Managing director

Contribution | Runs Europe's largest Internet fund, with $500 million to invest in dozens of startups

Ambition | To create an integrated Web *keiretsu* with global reach

In 1980, Chahram Becharat fled Iran with his parents after Islamic revolutionaries seized the family's industrial holdings. Now Becharat, 33, plans to be on the winning side of a different type of revolution. He is managing director of Paris-based Europ@web, an Internet investment firm that aims to be Europe's answer to Net investment powerhouses such as Japan's Softbank and the U. S.'s CMGI.

With a $500 million bankroll from the French tycoon Bernard Arnault, Becharat has emerged as Europe's top backer of Internet ventures, with stakes in more than two dozen startups. His audacious goal: to build a worldwide network of Internet companies that collaborate closely for their common good. For example, two auction sites he has invested in, icollector in Britain and Aucland in France, are sharing listings to create a single big marketplace. Vows Becharat: "The whole will be greater than the sum of the parts."

Becharat has a good headstart on the competition. When Europ@web began last summer, most investors were ignoring European startups. That gave Becharat an opening to latch onto promising players such as travel site Leisureplanet.com and Libertysurf, a French Internet service provider that is now expanding across Europe. "They've developed a very strong portfolio," says Derrick Brown, an analyst at Robertson Stephens in Londo

Becharat is committed to Internet investing for the long ha His parents taught him something about perseverance. After settli in France, they started a trading company linking Iranian business with the West. Now, with a more moderate government in pow they are back in their beloved Iran and have a successful minera water company. Expect the same kind of tenacity from Bechara

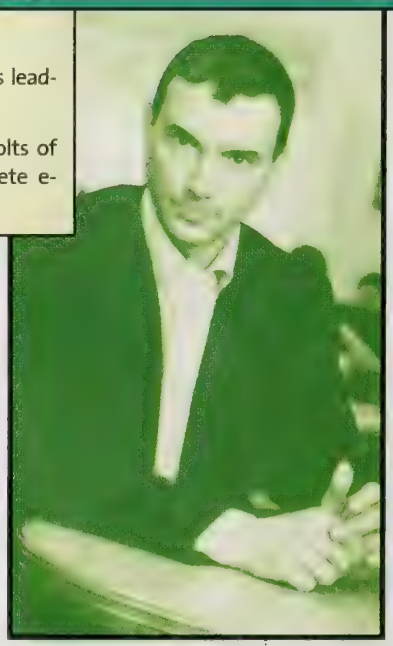
By Carol Matla

Paulus Neef | Pixelpark AG

Position | Founder and CEO

Contribution | Created one of Europe's leading Web design shops

Ambition | Move beyond nuts and bolts of setting up Web sites and offer complete e-business solutions



In most areas of e-business, Europe's myriad cultures and languages represent gigantic obstacles. But Paulus Neef has turned them into an advantage. The 39-year-old chief executive of the hot Berlin-based Web-site design firm Pixelpark is building a unique worldwide empire that specializes in straddling borders. And no wonder. With a German father and a Spanish mother, he grew up in a stew of cultures. Neef has opened satellite offices in the U. S., France, Austria, Britain, and Switzerland. And that has helped him to land an impressive roster of multinational clients, including Procter & Gamble, Bertelsmann, Lufthansa, and UBS. He often designs a series of sites for different national markets. Pixelpark doubled its revenues last year to $22.8 million, ma ing it the top Continental Web design agency and t sixth in the world. "When it comes to localizi Web sites, the Europeans are well ahead of t Americans," says Lars Wagstein, a Stockholm-base analyst at Jupiter Communications.

Now, Pixelpark is moving well beyond simp site design. "That will just be a commodity, but i novative Web consulting will add value," says Nee His firm advised Procter & Gamble to lure cu tomers to its Hugo Fragrances Web site by allowi them to download video clips and bits of mus and make their own mini-movies. And Pixelpa created a site for Swiss food giant Nestle that po consumers on new kinds of chocolate they'd like try. "We see Paulus as the best conceptualist in t world for total e-commerce solutions," says Kla Eierhoff, an executive board member at Bertelsman which has invested in Pixelpark in addition to bei a customer.

English may still dominate the Internet, but if Paulus Ne has his way, a mixture of German, Spanish, and other Europea ideas will help bring it alive with innovative design.

By William Echiks

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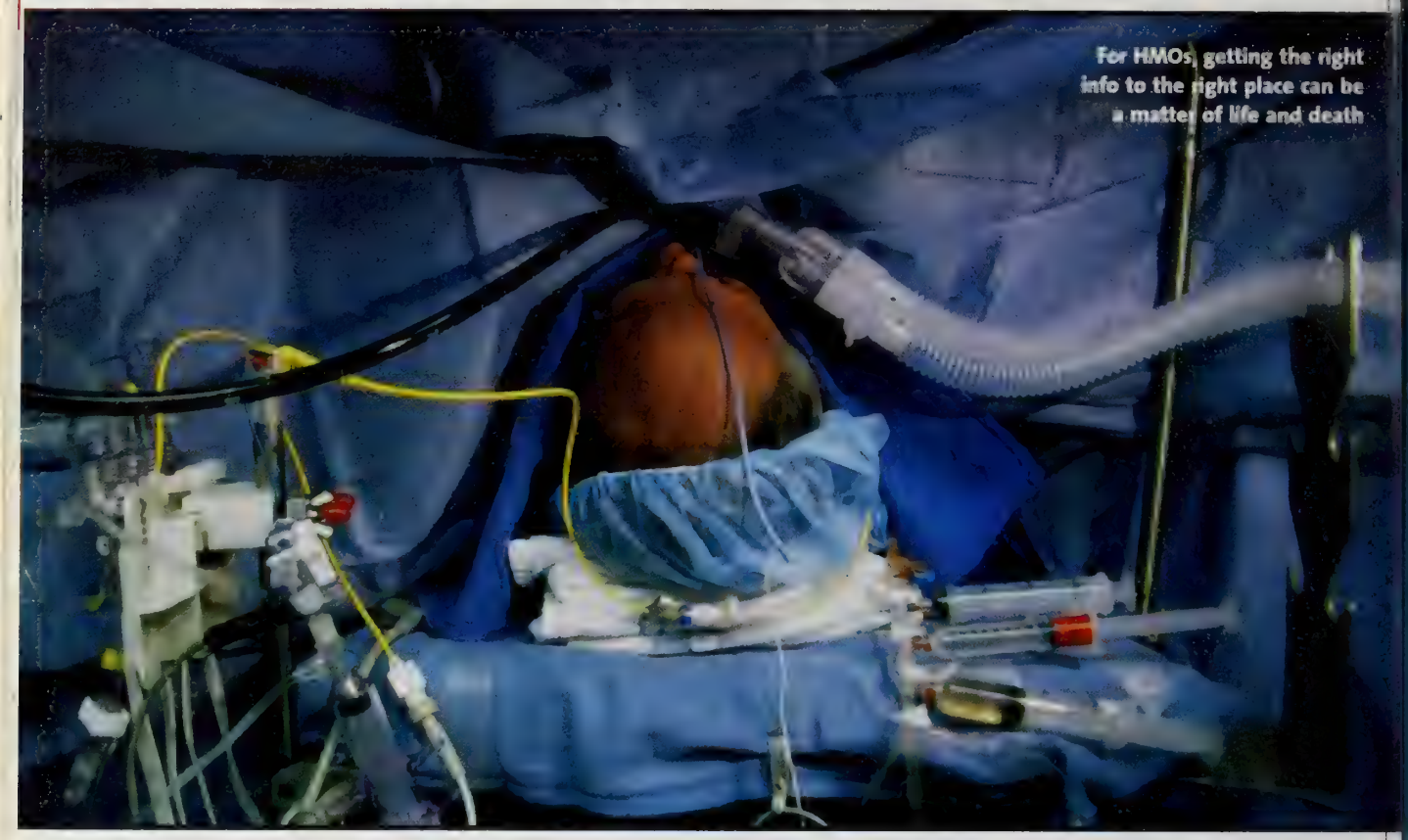

For HMOs, getting the right info to the right place can be a matter of life and death

Kaiser Takes The Cyber Cure

by DOUGLAS GANTENBEIN AND MARCIA STEPANEK

The managed-care giant is spending $2 billion to move its operations to the Net

For years, Kaiser Permanente and most other health-maintenance organizations didn't invest much money in information technology. Instead of using the power of the Internet, they relied on old-fashioned paper records and creaky steel filing cabinets. Even Kaiser, the country's largest HMO and one of the techno-savvy, kept virtually all of its patients' files on paper until two years ago and had to ship them around in fleets of trucks. In places like Colorado, 20 or so courier vans would take off every night in a Keystone Cops-like scramble to get files to the appropriate hospital or clinic. Not only was it absurdly expensive, it was incredibly ineffective: Specialists who had patients referred to them ended up without a patient's paper file 30% of the time.

Now Kaiser is giving itself emergency tech care. Chief Executive David M. Lawrence has launched a massive $2 billion project at Oakland (Calif.)-based Kaiser to move all of its operations to the Internet. For starters, he plans to create digital medical records for each of Kaiser's 9 million members and to electronically link its 361 hospitals and clinics with Kaiser's 10,000 doctors, nurses, and dentists. He'll set up customized Web sites so clients such as General Motors Corp. and Wells Fargo & Co. can look up their particular rates or coverage. And there will be separate sites so doctors and administrators can order everything from bandages to CAT-scan machines over the Net. Lawrence considers building the e-care system to be Kaiser's top priority. "It will be the central nervous system for tying together all of the elements needed to care for patients better—and it will do so in ways now unimaginable," he says.

Kaiser needs powerful medicine. In 1998, the HMO lost $288 million on sales of $15.5 billion, largely because it underestimated the amount of care it would have to give and had to switch patients to more expensive non-Kaiser physicians and specialists. For the first nine months of last year, it returned to profitability, but it had to sell off money-losing operations in five states including New York and Massachusetts.

Knowing that competition will contin-

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ue to be vicious, Lawrence is turning to the Net to give Kaiser a leg up. "Companies have already squeezed what savings they can out of managed care, so HMOs like Kaiser must find new improvements to compete, or falter," says Ian Morrison, an independent health-care expert at the Institute for the Future, a Menlo Park (Calif.) think tank.

Kaiser's effort comes as managed care is under fire. Patients have begun to believe that HMOs are cutting costs by barring doctors from giving adequate care. Politicians like Democratic Presidential contender Bill Bradley are arguing for radical changes in how health care is delivered. HMOs such as Kaiser need to figure out how to harness the Net to deliver better care at a lower price. "We spend $1.2 trillion on health care—$450 billion on administrative costs," says Bradley. "By simply moving things from paper to the Internet, you will be able to achieve significant savings."

LONG HAUL. The Kaiser experience shows, however, that there are likely to be bumps along the road to savings. Since embarking on its Net effort in 1998, the HMO has fallen nearly a year behind schedule—it now expects to complete the transformation in 2003. The delays have been caused by difficulties in some pilot programs, resistance from some doctors and hangups in selecting tech suppliers. Now, IBM and Net consultant USWeb/CKS will help lead the Web program for Kaiser. We "may have underestimated the complexity of this undertaking," says Lawrence.

Still, he's starting to see results. In the Northwest, where the Net system has been in place for two years, Kaiser's costs increased at a 2.1% pace in 1999, down from a 6% average annual rate in the mid-1990s. And only three of Kaiser's six regional divisions are using the Net system so far.

"It will be the central nervous system for all of the elements needed to care for patients bette

When Kaiser completes its move to the Internet in 2003, the company expects to be saving "tens of millions" per year, according to Lawrence. "It's a revolution, and we're just now seeing the first glimmers of the impact it's going to have on the delivery of health care."

Here's how Kaiser's Net effort shows up in its day-to-day operations: When a patient comes in for a visit, doctors can instantly tap into their records from a keyboard and a flat-panel screen attached to the wall in each examining room. Doctors use the computer to type up notes and flip through records of previous treatmen X-rays, or charts. All that information i zipped over dedicated high-speed phon lines, called T-1s, to a central database i each region. For example, the database i the Northwest region is housed in Portlan Ore., and can be accessed from any o Kaiser's hospitals and clinics in Orego and Washington state.

The biggest savings from the syster today are coming from containing phar maceutical costs, which have been risin 16% to 18% annually. When a doctor log on to Kaiser's computer network to pre scribe a drug for a patient, the networ automatically offers up any available lower cost alternatives. For example, if a physicia enters a prescription for the antidepres sant drug Zoloft, a digital note remind the doctor that the drug is twice as ex pensive as the similar Prozac. Doctors stil can prescribe Zoloft, but they're less likel to do so. Simply offering alternatives t Zoloft helped Kaiser trim drug costs b $100,000 in its Northwest division. For al types of drugs, the system has helped th Northwest unit cut costs by 20%, accordin

KAISER'S INTERNET Rx

Kaiser Permanente is using the Internet to improve health care, while cutting costs. Here's its prescription for how best to harness the vast reach of the Web:

Problem	**Prescription drug costs** are rising 16% to 18% annually	**Doctor bills vary widely** across the nation for identical services	**Administrators are flooded** with non-urgent phone queries about drugs, appointments, and health care	**Health-insurance costs** to businesses are on the rise, by an average 18% to 20% nationwide	**Between 10% to 15% of patient tests** must be repeated because of lost or misread records
Solution	**Kaiser's in-house network** suggests cheaper drug alternatives or less dangerous medications	**Kaiser's in-house network** taps into a database that suggests standard treatments aimed at containing excessive charges.	**Kaiser's Web site** lets patients check their appointments and e-mail pharmacists with routine queries	**Kaiser's in-house network** cuts client paperwork and customizes premiums by offering real-time quotes	**In-house network** creates digital records that can easily be accessed by authorized personnel
Payoff	**Drug costs** dropped 20% at some clinics, legal costs are down, and incorrect prescriptions have been reduced	**Health-care costs** are reduced by 5% to 10% across Kaiser's operations.	**Kaiser's Northern California division** expects a $400,000 decrease in phone bills this year, and to cut support staff by one-fourth	**Kaiser's 4,000-plus insurance brokers** can calculate quotes and notify clients in minutes	**Duplicate tests** virtually eliminated in some clinics, for a cost savings of an estimated $1 million in Kaiser's Northwest unit last year

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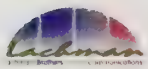

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to Dr. Robert Pearl, who is implementing the Net program at Kaiser.

Kaiser's new network is doing away with silly mistakes, too. In the past, 10% to 15% of patient tests in the Northwest had to be repeated because of lost paperwork or illegible doctors' handwriting. "You'd be surprised to find how often a patient's records simply fall through the cracks," says Pat Hogan, vice-president in the Portland, Ore., office of benefits broker Marsh USA Inc. Now that those records are on a central database, the vast majority of those repeated tests have been eliminated. An added bonus of the database: Doctors can get instant updates of everything going on with their patients. "We don't have to wing it anymore," says Steve Gordon, a Portland internist.

Soon, patients will be able to make appointments with the click of a mouse. In pilot programs in Modesto, Calif., and Stockton, Calif., Kaiser customers can tap into its Web site to schedule time with a doctor. That could add up to big savings, since it costs HMOs an average of $10 per patient to make appointments on the Net, vs. $70 over the phone, according to an October study by medical researcher Northwest Healthcare Networks. Kaiser won't break down per-patient savings, but officials say they expect to save $400,000 annually in the Northern California region alone. Multiply that throughout the Kaiser system, and the savings run into the millions.

Patients used to wait up to eight days for lab test results. Now, they can see them in as little as several hour

Still, doctors have been a bit wary. At the start, many found that the Net system made talking with patients awkward. "Putting the computer in the examining room doubled the difficulty in the physician-patient interaction, which is the m critical piece of medical care," says An Lum, assistant medical director of serv quality in Kaiser's Colorado division. Af training doctors to maintain eye cont with patients and share information the computer, the problems have d clined. But many doctors still don't li computer systems giving them advice suggesting alternative medications. "I been a big challenge," says Dr. An Wiesenthal of Colorado. "But everybo uses it, and everybody loves the info mation they can access."

No question, Kaiser still has much wo to do. As the HMO rolls out its Intern care system to the rest of its divisions ov the next three years, the number of Kais patients with digital records will rise fro 1.5 million today to 9 million. The HMO just starting to move its ordering of suppli such as medical equipment, to the N Pearl expects that will cut the administrati costs of purchasing by 30%, to 40%. Wha more, Kaiser is beginning to design cu tomized Web sites for corporate custome such as AT&T, BankAmerica, and Xerox.

"GREAT OPPORTUNITY." Despite the pro ress, Kaiser and the rest of the indust have a long way to go. Most remain te laggards. But change will be forced up them—if not by campaigning politician then by customers who can vote with the feet. "I don't think the health-care indust overall has quite figured out the benefits the Internet," says David Wachspress, d rector of undergraduate and e-commer programs at the New Jersey Institute Technology. "But customers are going start demanding access to health recor and other resources, and that will dri the industry to start providing these se vices, or people will leave them."

Lawrence plans to lead the charge. Sur he wants to cut costs and make Kaiser efficient as possible. But he also thinks th Web can help Kaiser deliver somethin grander. "The Internet is a great opportu nity, a key to improving health care ever where," he says. Kaiser's digital revolutio could be just what the doctor ordered.

Kathy Prosser and Pat Hogan of insurance broker Marsh USA say Kaiser's Net system has reduced paperwork at their firm

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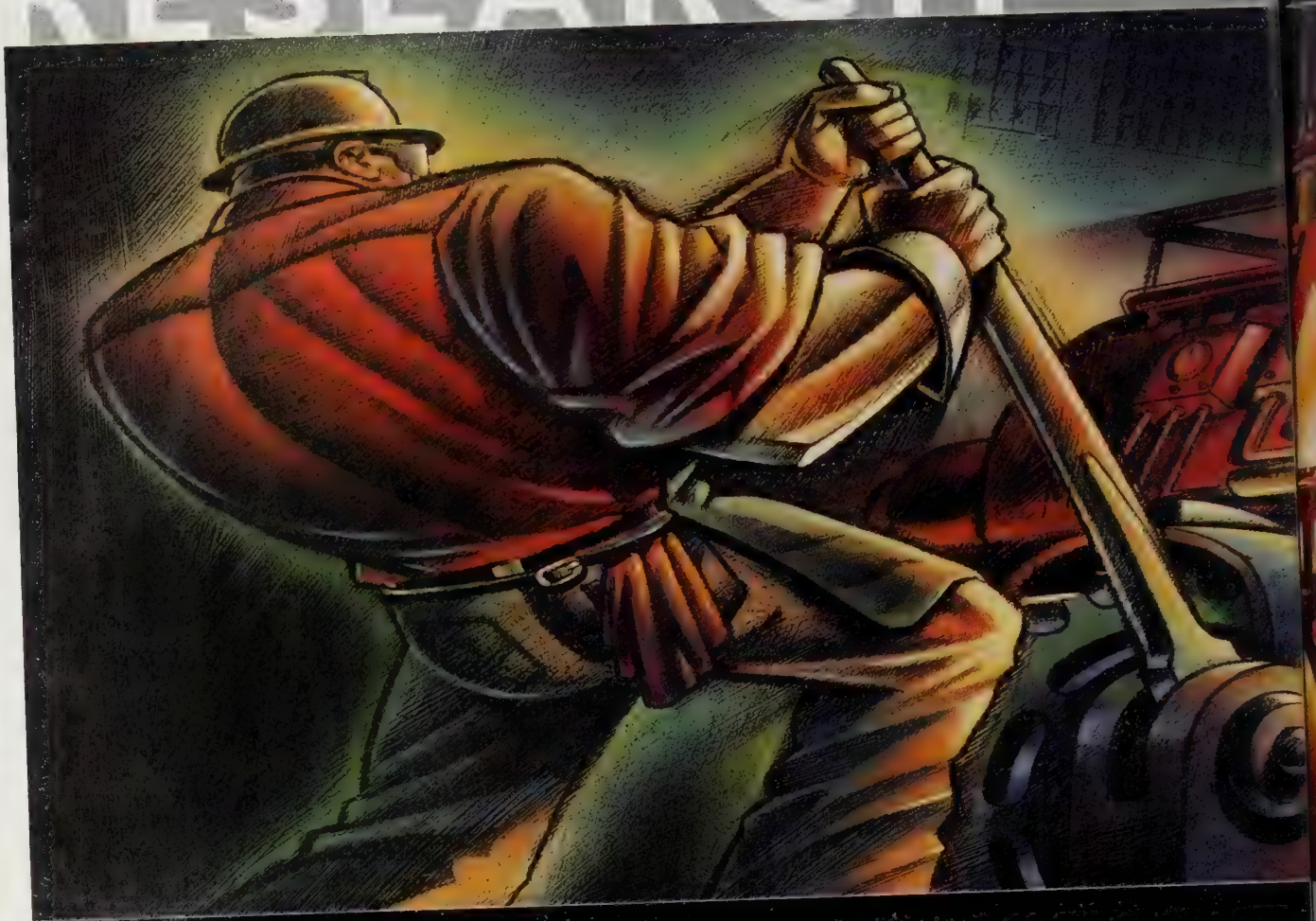

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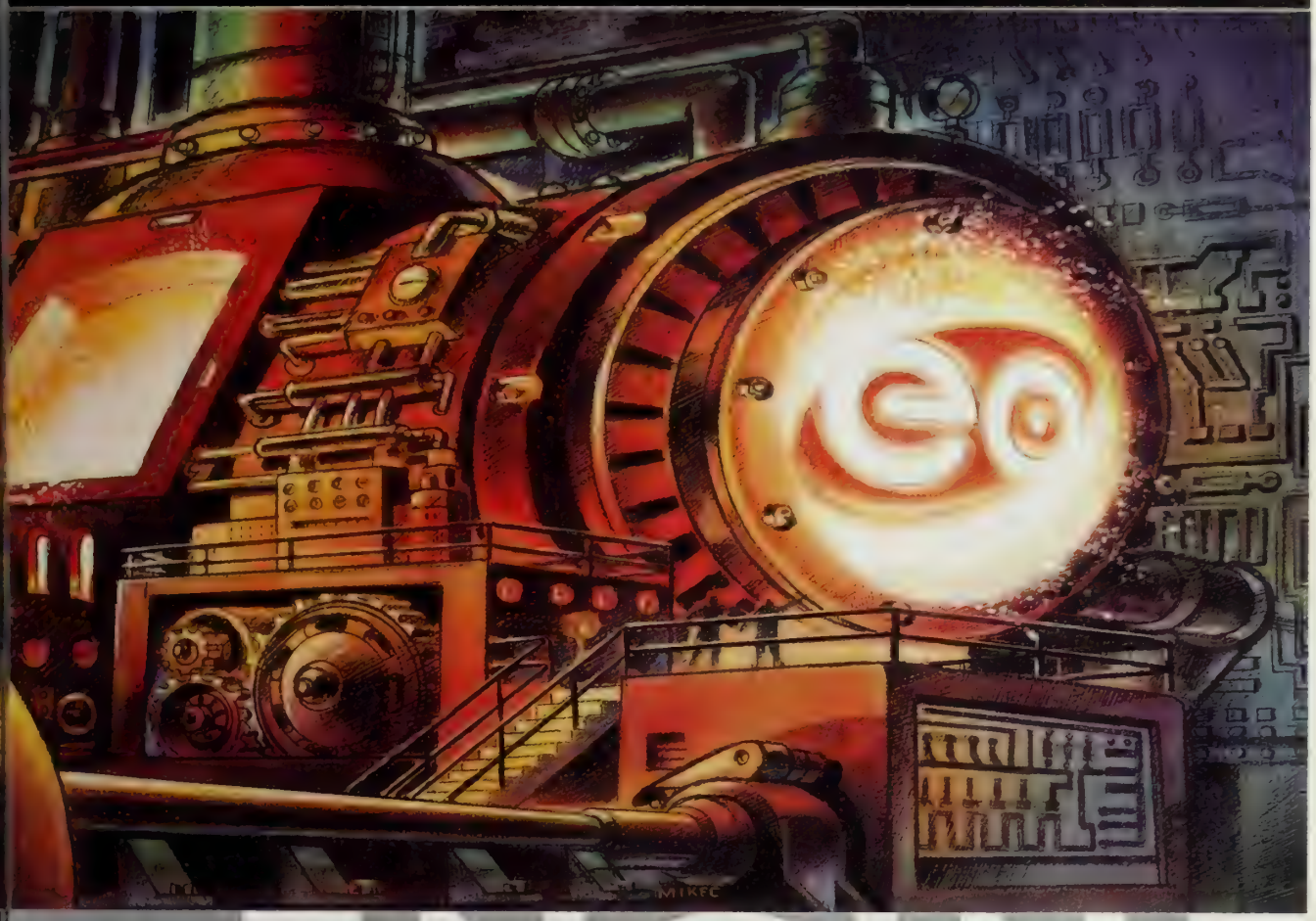

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TIMOTHY J. MULLANEY
tim_mullaney@ebiz.businessweek.com

Show Me a Real Live CPA

In the long run, face-to-face tax help beats spiffy Web sites by a mile

Take it from me: There's a lot you can learn from being fired. Me, I learned about ta es. I'd always done my own, but being bounced from a job in 1997 meant working a freelance business writer until early 1999—and actually running a business as oppos to doling out critiques. For the first time, I turned to tax-preparation software and accountant. Now I can use the Internet for tax help. But is the Web right for the jo

To find out, I went to three leading tax Web sites: Quicken.com, Yahoo! Finance Tax Center, and Kiplinger.com. Kiplinger and Quicken are linked to two top tax-software packages, Kiplinger TaxCut and Intuit Inc.'s TurboTax. All three help you get organized before doing your taxes and tell you something about how to handle investments to minimize the bite. Any of them lets you file online (at Quicken, you follow a link to sibling site TurboTax.com), with an ease of use comparable to tax-prep software. And all feature bulletin boards where you can ask for help.

It sounds simply spiffy. So why did I leave unconvinced that I want to file my taxes online? Two reasons: First, I don't think these sites are flexible or interactive enough to be a plausible substitute for an accountant. And second, I just don't see that there's any real benefit to sharing all my tax information with Quicken, Yahoo, or Kiplinger. I leave plenty of information all over the Web, but not at this level of detail. Bottom line: One problem with online tax prep can be fixed as the state of the art improves. But the other probably can't.

Web reviews
Tax Advice & Service Sites
- Quicken.com
- Kiplinger.com
- Yahoo.com

Marketing information about taxes is a conundrum for any of these sites: One either has a very simple tax situation or one needs more than a Web site or even a CD-ROM can easily deliver. Most people—the IRS says 77%—don't itemize and don't really need help. Even for those who do itemize, most don't need to know much. If you've done one Schedule A, you've done them all. Take off the state taxes, the mortgage interest and points, charita contributions, and, in a minority cases, medical expenses above 7.5 of your gross income and miscel neous deductions above 2% of yo income. Then move the numb to your 1040. As the Sopranos s bada-bing.

Then there are the folks w small businesses or big investmen Their April is a miasma of dep ciation allowances and home-off deductions. How much perso use is enough to disqualify yo home office deduction? What reco do you need to document your bu ness mileage? What capital gains r do I pay for that short-swing inve ment, and should I think of that before after I sell?

For a lot of us, at least the first time we e counter this situation, a Web site isn't going to be enough. Me spent a whopping $70 to hire an accountant. In two hours at r kitchen table, he explained the rules and what I could do. He a swered my questions as soon as I asked them and told me to c him if I needed him while doing the return. Then I spent about $ on TaxCut and knew what the program was talking about instead figuring it out on the fly. Together, they saved me at least $1,000

I didn't get that same confidence when I visited these Web sit It gave me the creeps to see postings on a Quicken bulletin boa in which someone told a fellow online community member to ahead and deduct a computer because she wouldn't get audit anyway, or a Yahoo user who asked God knows whom for "ing nuity" when seeking advice on IRA withdrawals. The posts seem best agnostic about obeying the law. As it happened, the partic lar person on Quicken who asked the question can deduct h computer—it's used exclusively in a home-based business. B

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the discussion's moderator was so distracted by the horrific advice doled out by some doofus that he or she mistakenly said the computer wasn't deductible. The truth is, the people who posted questions would be better off pulling Internal Revenue Service publications off www.irs.gov.

The sites, however, do have lots of content, from get-organized lists to detailed summaries of key tax issues. Yahoo! has the longest list of issue summaries, and they're pretty good. Articles by Kiplinger's personal-finance journalists are also worth reading. But what if you have a question? That's where the sites can't match what you can get for relatively few dollars in the real world. You hope the Yahoo! bulletin-board poster who calls himself "AnotherLawyer" really is one, but you really don't know (let alone whether he's a tax lawyer). You can interpret the documents for yourself and hope you get it right. Or you can do what I did: sit with a smart guy whose name you know and whose references you've checked, and pick his brain until you're satisfied.

For all their bells and whistles, the sites just aren't that flexible. And then there's the privacy issue

But even if every poster to Yahoo!'s Tax Center were honest and every person working for Quicken.com were recruited from Harvard Law and answered queries in real time, online tax prep is still a shaky idea. Why? Because anyone doing a complex 1040 onl shares troves of valuable information and gets little marginal retu

Smart consumers share information online only when it g them something extra. Basically, the information and electronic ing service these sites provide can be had for the $25-30 t good tax software costs. Quicken and Kiplinger charge about $ for online federal filing. But I have no great desire to reveal t Web site tons about my freelance customers, my investments, a my house. It's fundame tally different from kno ing I bought Proust Christmas or that my vacation was to London. That's information you share w strangers all the time, and I could care less if Amazon.com a Travelocity.com spread it all over the Web. I accept that Quick says it doesn't use specific tax return information for market purposes or sell it to third parties without customer conse But even if sites keep my information to themselves, it ta more than pushing small-business articles or tax newsletters way to make sharing it a good deal.

Most people don't think they need laws protect their privacy online, but they shou take common-sense steps, such as doing th taxes in private. The bet here is that they w And when I win that bet, darn it, I'll report income to the IRS. ◉

e.biz online

To learn more about how the Web can help with your taxes, see Clicks & Misses at **ebiz.businessweek.com.**

A TAXING TASK

No one likes doing their taxes—any more than paying them. Now Web companies want people to prepare their taxes online, but leading sites don't offer much that a CD-ROM doesn't cover. And, for complex returns, an accountant is still the answer. Here's how the sites stack up:

		YAHOO! FINANCE finance.yahoo.com	QUICKEN.COM www.quicken.com and www.turbotax.com	KIPLINGER.COM www.kiplinger.co
Content	Lots of stuff—but pretty much the same stuff. Loads of reminders on how to keep yourself organized and keep records so tax time is easier. Kiplinger's is the liveliest, thanks to content from its personal finance magazine. Yahoo! dishes up pages of tax tips—dry but complete. Ditto for Quicken, which offers a little less. All are nice, but none is any substitute for a give-and-take with an accountant.	click	click	click
Calculation & Tools	All of the sites offer a variety of interesting little gewgaws to let you estimate your refund, plan your Roth IRA, and so on. At Yahoo, however, they weren't working when we visited in January.	MISS	click	click
Online Tax Prep	Yahoo claims to offer online tax prep—and surely will—but we got 404 messages when we tried to get it to work. Quicken's site functions much like Intuit's popular TurboTax software. Kiplinger's online tax prep product wasn't up on the site in time for this review.	MISS	click	MISS
Community	All three have bulletin boards where you can talk taxes. Kiplinger discussion groups were hard to find and thinly populated. At Quicken, we saw several examples of moderators giving off-kilter advice (usually quickly corrected). Besides, with all due respect for the pieties of the Web, getting your tax advice from strangers in chat rooms is just buck stupid.	MISS	MISS	MISS

We had a one-eighteen in progress. Missing inventory. When we arrived at the scene, the proprietors reported more unusual activity: higher margins, increased inventory turns, and faster, less expensive ways to acquire products and services. The only evidence? The word "Moai." It's still hard to believe, even for a seasoned law enforcement veteran such as myself.

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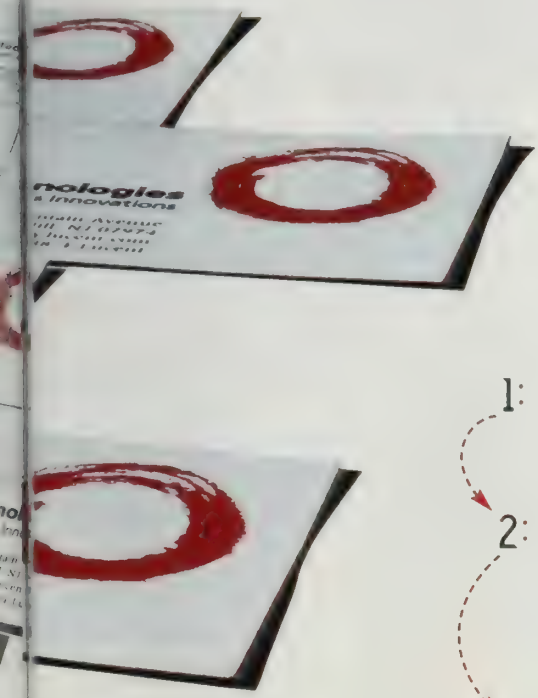

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BY
JOAN O'C. HAMILTON
joan_hamilton@ebiz.businessweek.com

Desperately Seeking Buzz

E.biz ads are pushing the envelope. Will they work

The definition of hell, a CEO once told me, is four, two hour meetings a day. And the six folks gathered around a conference table in the Los Angeles high rise where I'm sitting are living it: One is snoring audibly; another is harvesting unspeakables from his ears, eyes and nose; another falls dead asleep, his forehead bouncing on the table. The door opens, mouths gape. In struts transvestite diva RuPaul—seven feet tall in a teased big-hair blonde wig and a pythonesque green and blue dress. "This meeting is a real draaaaaag," he snarls with a sassy flick of his neck.

"That's it!" cheers David Thompson, vice-president of marketing for San Jose-based WebEx Inc. We're actually watching this unfold on a tiny monitor right outside the meeting room. We are witnessing director Mark Bennett film a 30-second commercial spot that will run during the Jan. 30 Super Bowl, advertising's annual Valhalla. "That line is going to go down in history. It has water cooler resonance. And we're all going to be doing that neck thing," howls Thompson. Laughs Kelli Christman of the Free Range Chicken Ranch agency, which is producing the spot: "There will be personal trainers who teach that."

Welcome to the ebullient front lines of the war for dot.com mindshare. WebEx is spending many millions on this campaign to make its service, which lets people meet online and share documents in real time, a household word—about $1.2 million just to secure the Super Bowl time slot for major markets. And RuPaul's big hair, big teeth, and shapely gams are appearing on giant billboards; his sexy patter in radio spots. But if Thompson feels an iota of uncertainty about putting his company's future in the hands of a 1,000-watt drag queen, well, he sure doesn't show it. He scoots around the set grinning like the proud father of the bride, his booming laugh reverberating. Muses director Bennett, who has directed other spots for Web startups: "Dot.com clients are more open-minded. They're not mired in the tradition of bad advertising. The concepts are younger, more entertaining."

No argument there. Creative campaigns from the likes of E*Trade and the sing-song silliness of Yahoo! have injected a blast of fun and excitement in the ad scene. But most of these reach only to consumers. WebEx is a so-called business-to-business upstart. Brochures for the four year-old company explain its technology offers "scalable architecture for multi-media collaborations." That's geek-speak for software that lets people use their browsers to collaborate online. But it also makes hiring RuPaul as your corporate

> "Dot.com clients are more open-minded. The concepts are younger."

spokes-uh, well, person, about as natural as tapping Madonna to hawk Chase Manhattan's corporate bond group; or maybe "Stone Cold Steve Austin here for SmithKline Beecham."

IPO AHEAD. But this is the Internet, 2000. Startups like WebEx believe they have no choice but to set themselves apart from the yammering hordes of other dot.coms. "A lot of people who aren't necessarily your customers need to understand your space," Thompson explains. Translation: An initial public offering looms. Therefore, he admits that part of the campaign's job is to "set a high noise level before we go into our quiet period." In early December WebEx raised $26 million in venture backing with the express purpose of getting the word out and grabbing potential investor and customer mindshare from online meeting rivals such as Outreach Technologies' Embrace service and PlaceWare's Conference Center.

WebEx isn't some fly-by-night "content" play or iffy e-tailer. Its technology is up, running, working, and has won widespread kudos in the technical world. "Meeting online" with WebEx means it

If Internet billing is the future,

Welcome to a future where the power of the Internet transforms your billing from a mere accounting function into a strategic business tool. Where your Internet-based bills enhance customer loyalty, increase your brand awareness and create new revenue streams. Derivion's unique service bureau approach to Electronic Bill Presentment and Payment makes that future easy and affordable for every company. And it's ready now. The future is waiting for you. Find it at **www.derivion.com**.

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dividuals in a work group can not only all view the same document, photograph, or slide show, but they can take over each other's desktops and work on each others' files. The idea is to eliminate the need for travel and assembly in boring, chart-filled, mind-numbing meetings. RuPaul even used it with Thompson and his staff to remotely make edits to a WebEx press release, changing his description from "drag queen" to "towering glamazon." As Ru tells one of his commercial-mates: "Girlfriend, you could be home sippin' latte in your lingerie and still make this meetin'!"

WebEx is looking to go public within six months, acknowledges Subrah S. Iyar, a veteran of Apple Computer and Intel who is WebEx's CEO. "If we wanted to stand out, there aren't that many options," says Iyar. He concedes that "some investors were quite concerned," at the notion of RuPaul leading the way on his five-inch stilleto heels. One of them, Kip Sheeline of Summit Accelerator Fund, admits he was initially concerned, although he points out that "if this was a TV ad that just had a bunch of drones marching off a cliff like Apple did a few years ago, we wouldn't be having this conversation."

FEATHER BOAS. True, although, ironically, Thompson told me that one early idea for this spot was a remake of Apple's famous "1984" ad—except the runner would be replaced with RuPaul and instead of hurling a hammer at Big Brother's video image, he would sling a purse.

RuPaul turns out to be a very articulate and enthusiastic spokesperson who the WebEx folks say wowed investors at a campaign launch party (where blue feather boas were party favors). He's also in line for Net upside—taking cash and equity for his services.

Traditionalists charge that Internet companies are mixing up buzz with branding. Take, for example, Cyberian Outpost's spots setti a pack of wolves on a marching band, or a current campaign f Bigwords.com, a college textbook purvey that features a geek screaming and cavorti with a giant banana.

Ignoring basic tenets of advertising—cr ating and delivering a consistent, appeali proposition to actual customers—could dangerous. "Most Internet company ads a bewildering, annoying, and sophomoric," sa New York strategic branding consultant Al Siegel of Siegel & Gale.

Not so, says Iyar. He points to expensi but successful campaigns from such outf as Hotjobs.com and Monster.com at last yea Super Bowl. They offered witty, emotion tugs on viewers with children pondering th futures, and a security guard looking for h dream job.

Siegel has emphatically discourag clients who have wanted to use what calls "outrageous" celebrities, ranging fro Dennis Rodman to Donald Trump. "I wou have severe reservations about using a R Paul," Siegel says, citing the Super Bowl as venue bound to attract many people wi conservative religious values, not to mentio good ol' boy football rednecks who will offended at the whole idea of a drag quee "When you use people who are outrageous and on the edg you put yourself at risk."

A week after the commercial shoot, I catch up with the Web team back in San Jose, where they're showing a rough version the commercial to Iyar. The spot is clever and funny—but some RuPaul's undeniable magnetism is lost on the small screen (RuPa accurately explained to me in Los Angeles: "You have to stand ne to me to get the scale and realize how huge I am."). And if you not already hip to Ru, I'm not sure you'll realize she's a he—an thus get the "draaag" joke. Iyar's reaction: think it's tastefully done. My main reaction Should we have bought more time?"

So, you make the call, Girlfriends: R and WebEx will play at the Super Bow But will they play at the water cooler?

POINTERS

"Bewildering, annoying and sophomoric" is how one expert describes most Internet ads. You couldn't find a better example of that than the "bananas" spot from textbook seller bigwords.com. See for yourself: **www.broadcast.com/business/bigwords/banana30_g2dialup.ram**

How did last year's Super Bowl ads go over with viewers? Well, according to one poll, Budweiser's dalmatians licked all the dot.coms. But the number of dot.coms that will appear this year has soared. See the latest at: **www.superbowl-ads.com**

Thinking maybe RuPaul is the perfect endorser for your scalable, back-office infrastructure-based start-up? Get the skinny on Ru at: **www.rupaul.net**

"When you use people who are outrageous, you put yourself at risk," says one adman

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BY
ROBERT D. HOF
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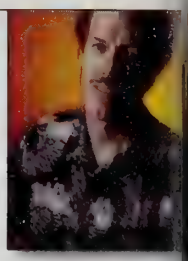

The Case For Losing Money

Sure, high-flying dot.coms are dropping a bundle—but profits are on the horizo

It's a running joke among Net entrepreneurs. Venture capitalists won't fund you unless yo can prove your company will lose $50 million in the first six months—otherwise they fi ure you're not ambitious enough. Profits? Oh, please. Tell them your business model is extensible that you'll scale up first and monetize later. Don't laugh, it works. But maybe n for long. Now, investors and analysts who advise them are suddenly changing the minds about e-commerce company losses. In early January, for instance, dot.coms became dog.coms almost overnight when Web superstore Amazon.com Inc. announced that—despite beating fourth-quarter revenue estimates handily—it would still show significant losses. Momentum investors bailed out, and perennial naysayers crowed that e-tailers would never make money.

I think they're wrong—and those investors are wimps. Sure, there are way too many startups vying to become one of the two or three surviving online drugstores or toy emporiums. And I certainly can't devise a convincing defense of current stock premiums. But at least for now, the e-commerce leaders are right to keep spending—even if that means more losses.

For one thing, e-commerce is still in its infancy, showing little sign of slowing down. Companies that move first into a market, and spend enough to build it, capture the most customers at the lowest cost and tend to keep them. Just look at auctioneer eBay Inc. Despite site crashes, it continues to dominate person-to-person auctions.

Besides, it takes time to build real businesses online. For mo than a decade, people thought America Online Inc. Chief Execut Stephen M. Case was nuts. From the time AOL started in 1985 u til 1996, it didn't make a dime. Now, AOL is about to own t world's largest media company, Time Warner Inc. It's understan able why investors blanch when they see Amazon, eToys, and oth spend millions on warehouses and customer service centers. But t recent holidays proved them right. They ended up pleasing cu tomers—and that's the key to e-tailers ultimately turning profitab

The big question is how long e-commerce companies should i vest in expansion before producing profits. Answer: as long as o portunities keep popping up. "We think it would be a big mista not to invest during this critical time," says Amazon CEO Jeffrey Bezos. Of course he'd say that, but others, such as Greg Ky president of Net market watcher Pegasus Research, agree: "Ther so much opportunity that they shouldn't be managing for prof yet." That's even more true in emerging areas such as business-t business e-commerce. Despite escalating net losses, for instance, i

It takes time to build online businesse It was 11 years before AOL made a dir

vestors value materials-procurement software maker Ariba Inc. at $ billion. That's because its sales are more than tripling and it's e panding its market reach by creating online exchanges for buye and sellers. Fact is, valuations such as Ariba's, or even Amazo downsized $22 billion, prove most investors' thumbs are still way u

Now, this can't go on forever. Already, Beyond.com Corp. a Egghead.com Inc. have lost their premiums by disappointing investo one too many times. Amazon and others may be in for the same u less they can show how and when they will turn the corner.

Still, the bottom line is this: Does anyone really think that o traditional companies will ever make money online? Some upsta will prevail. They will be the very few who ignore the whiners, spe the bucks when it matters the most, and stay the course. Who would you rather be: Steve Case or... uh, who's that guy who ru Prodigy Communications? ◉

Name: Sam Harris

Profile: Retail customer/Chicago, IL

Customer history: Received "wing tips" e-mail promo: 12/1 (7:18 pm)
Hung up on "men's spring preview" solicitor: 12/4 (6:15 pm)
Placed online order for lingerie: 12/7 (1:04 am)

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COMMENTARY

By Diane Brady

HOW BARNES & NOBLE MISREAD THE WEB

For a glimpse of what's ailing barnesandnoble.com, just walk down the aisles of its parent's bookstores. At a typical midtown Manhattan Barnes & Noble Inc. outlet, the existence of the dot.com seems to be a dirty little secret. There's little mention of it in banners or newsletters throughout the store, and a sales clerk shrugs that "it's a separate company" when asked about the site. No wonder shopper Lisa Melora goes straight to archrival Amazon.com for book hunting online. "It's reliable, and I've never had to look anywhere else," she says.

That's exactly what bricks-and-mortar executives trying to move their businesses online don't want to hear. Barnes & Noble, which traces its roots to 1917, has yet to leverage its potent brand in cyberspace. Instead, the nation's largest bookseller has rigorously kept its 40%-owned Net operations separate in an attempt to tap into the investor frenzy for pure Net plays, prevent cannibalization of its existing business, and avoid charging sales tax in states where it has stores. With the Jan. 12 departure of bn.com CEO Jonathan Bulkeley, who left to pursue other projects but clearly did not want a retail chain hanging around his neck, the company can bring the two sides closer together. And that's what interim CEO Stephen Riggio, who is also vice-chairman of the chain, promises to do.

WANDERING CUSTOMERS. He has no choice. As Main Street companies venture online, a household name should be a huge advantage. Yet bn.com actually lost ground in online book sales during the last quarter, according to Harris Interactive Inc., dropping slightly to 16.7% of the market while Amazon gained more than five percentage points to get a 62.1% share. Amazon's customers are also more loyal, reports Nielsen/NetRatings, with only 17.9% of them going to bn.com over the holidays, while 47% of bn.com's customers said they also shopped at Amazon. No wonder investors have knocked bn.com stock down to $14, $4 below its May, 1999, offering price.

So what went wrong? Partly, Barnes & Noble simply got started late. By the time it jumped into the online fray in 1997, Amazon had already built a loyal following. And with little to differentiate its books from Amazon's, it was forced to compete on price. That means its online books sell for as much as 30% less than those on its store shelves.

But the biggest problem was the decision to keep the dot.com apart from its popular cousin. That freed the startup from bureaucracy and from having to charge sales tax, which would have given Amazon a huge edge. A separately traded Net venture also gave it stock options to woo cyber talent and a stab at heady valuations. Still, separating the two businesses was a big mistake, says Carrie Johnson, an analyst at Forrester Research Inc. She believes the chain should have plastered stores with ads and helped its shoppers go online. Instead, it squandered its top asset, leaving it "unable to leverage the name and get synergies."

Not that integration doesn't come at a cost. Sabotaging their established businesses is a risk for big-name retailers. Barnes & Noble may have four million customers online but it has tens of millions walking through its stores. Why promote a Web site that offers heavy discounts and no sales tax in most states to folks who might buy at full price? The answer is that if you don't, many will migrate to your online rival.

Barnes & Noble had some unique disadvantages. Still, its experience is instructive. Bricks-and-mortar stores looking to translate their brand strength online must be willing to vigorously cross-promote the two ventures, even if that means eating into their existing sales. If they don't, they risk becoming just another dot.com upstart.

Department editor Brady covers the publishing industry.

By cutting its online offspring loose, the bookseller squandered its biggest edge–brand recognition

FOR-PROFIT SCHOOLS

They're spreading fast. Can private companies do a better job of educating America's kids?

Leonard Mayo was at his wit's end. The public school where his son Joshua attended second grade was one of Philadelphia's best, but Joshua hated it. "He was not being challenged, and when my wife Lisa and I would ask about after-school activities or a gifted and talented class, the teacher would say there was nothing," says Mayo, 30. In despair, the couple looked at private schools and found a first-rate one nearby. But the $10,000-a-year tab was daunting on Mayo's salary as a telecom company account executive. And Joshua's brother, Jared, then 4, would start school as well in another year.

The couple had just decided to make the sacrifice when they heard about a school in nearby Bensalem that promised the best of both worlds: a high-quality education usually found at private school but at no cost. Something called Mosaica Academy Charter School was set to open in

VISTA ACADEMY / GRAND RAPIDS, MICH. National Heritage Academies' schools stress traditional values; some say they cross church-state borders

September, 1998, a strange hybrid that was publicly funded, and therefore free, but run by a private, for-profit company called Mosaica Education Inc.

The place itself hardly looked innovative—it was housed in an abandoned, 60-year-old public school—but it had jettisoned many of the trappings of public schools. Starting in kindergarten, Mosaica students use the company's proprietary curriculum, which immerses them in the development of civilizations over four millennia. There is no teacher's union, the school day is almost two hours longer than at the public school, and the academic year is 20 days longer. The school had no track record yet, but intrigued, the Mayos took the plunge and enrolled their sons. Today, two years later, "Joshua is learning things in fourth grade that I was learning in eighth grade," says Leonard. Mosaica's fourth-graders advanced twice as much on national tests as the national norm last year, and the 500-student school has a waiting list of 400.

Mosaica is a harbinger of what proponents believe will be a revolutionary force in U.S. education: for-profit companies that run publicly funded schools. In the past few years, more than a dozen new school-management companies have sprung up from nowhere (table). They offer widely differing approaches, but all promise to make a buck while doing something that 15 years of school reform has largely failed to achieve—namely, better educate America's children.

GROUND FLOOR. Right now, for-profit schools are just a blip on the screen: They teach some 100,000 students at about 200 schools out of America's 53 million children in kindergarten through 12th grade. But they're growing faster than a hungry 2-year-old. In two years, Boston-based Advantage Schools has shot from $4 million in revenues to $60 million. In the five years since it opened its first four schools, Edison Schools Inc. has jumped from $12 million to $217 million in revenue. It now runs 79 schools in 16 states.

Advocates have even grander visions of the future. By 2005, New York-based Edison Schools alone will be

The Business of Education

In the past few years, more than a dozen companies have sprung up to run public schools for profit. Some experts predict that within a decade, they will grab 10% of the $360 billion now spent on kindergarten to 12th grade. Among the major players:

COMPANY	REVENUES*/ LOSS*	INVESTORS	COMMENTS
ADVANTAGE SCHOOLS FOUNDED 1996 16 SCHOOLS 9,000 STUDENTS	$60 million/ Unprofitable	Raised $35 million from Chase Capital, Fidelity Ventures, U.S. Trust, and Kleiner, Perkins, Caufield & Byers.	Targets troubled urban school systems with discipline, uniforms, a longer school day, and a curriculum that gives teachers scripts for teaching.
BEACON EDUCATION MANAGEMENT FOUNDED 1992 26 SCHOOLS 4,700 STUDENTS	$27 million/ Unprofitable	Venture capitalist William R. Hambrecht has invested $6 million.	Allows significant local input into the program each school uses. Is developing proprietary 7th- to 12th-grade curriculum with project-based learning, use of technology, and career exploration.
EDISON SCHOOLS FOUNDED 1992 79 SCHOOLS IN 16 STATES 38,000 STUDENTS	$217 million/ –$38 million	Raised some $230 million from J.P. Morgan Investment Corp., DLJ Capital, and others, plus additional $122 million in a November, 1999, IPO.	Provides every child in third grade or above a computer to use at home. Hired former Yale President Benno Schmidt Jr., now Edison's chairman, to lead three-year effort to develop world-class curriculum.
LEONA GROUP FOUNDED 1996 35 SCHOOLS 10,000 STUDENTS	$55 million/ Says it is making a modest profit	Financed by shopping mall developer A. Alfred Taubman.	Unlike many for-profits, its schools vary widely in curricuum and approach. Says it makes money thanks to lean cost structure.
NATIONAL HERITAGE ACADEMIES FOUNDED 1995 22 SCHOOLS 8,000 STUDENTS	$50 million/ Unprofitable	Principal investor is Michigan industrialist J.C. Huizenga, with about $50 million. In January, raised $35 million more from private investors, plus additional $50 million of bank debt.	Traditional schools that offer back-to-basics curriculum with a heavy emphasis on discipline, conservative moral values, and parental involvement. Popular with parents, but critics charge they are running a Christian academy.
TESSERACT GROUP FOUNDED 1986 36 SCHOOLS 7,000 STUDENTS	$37 million**/ –$10.7 million	Has been public since 1991.	Stock is trading under 1, following huge losses. Hired investment banker in late December to explore strategic alternatives. Was first for-profit company to run a public school.

*ESTIMATES FOR FISCAL 2000 **ESTIMATES FOR FISCAL 1999 DATA: BUSINESS WEEK

ABBEY KELLEY FOSTER REGIONAL CHARTER SCHOOL / WORCESTER, MASS. Teachers at this Advantage Schools facility—in a former tool-and-die factory—follow a rigorous curriculum that includes Latin lessons for third-graders

managing 423 schools with 260,000 students, giving it revenues of $1.8 billion, predicts Michael T. Moe, analyst at Merrill Lynch & Co., which helped Edison raise $122 million in an initial public offering last November. By 2009, for-profits could capture as much as 10% of the $360 billion the U.S. now shells out annually on K-12 schooling, estimates Moe. Proclaims Edison founder and CEO H. Christopher Whittle: "In 20 years, 20% to 30% of U.S. public schools will be run by for-profits."

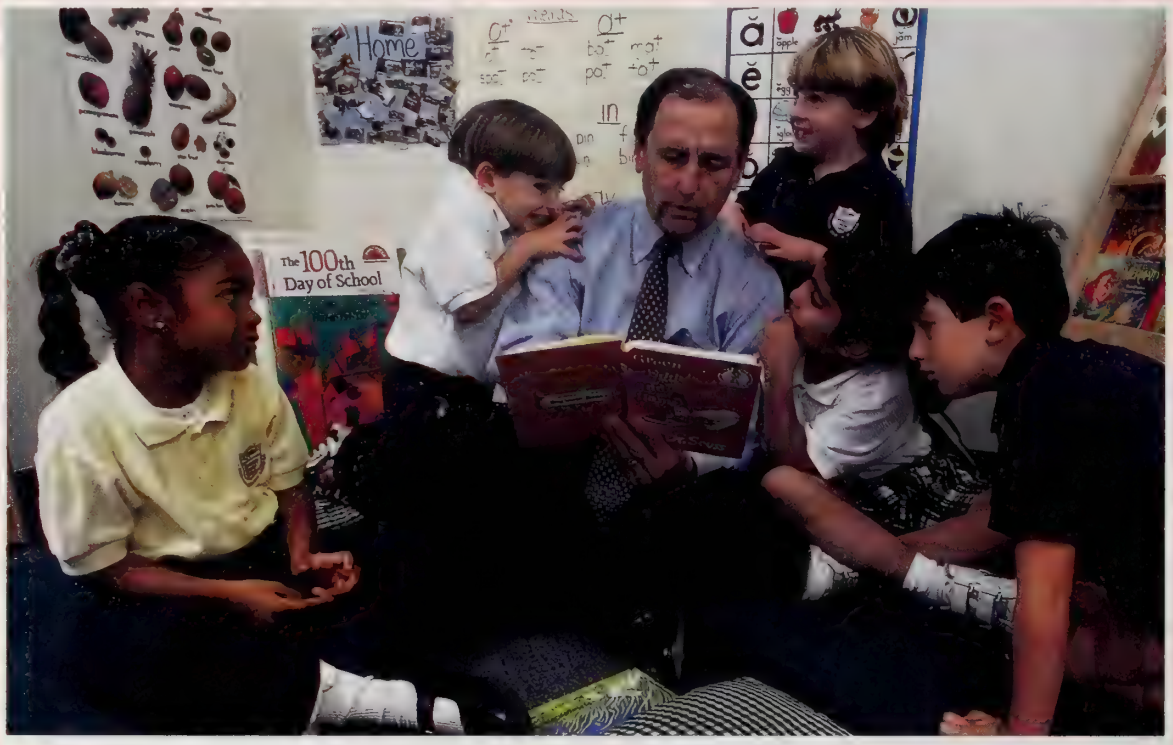
If even half of these claims come true, it would dramatically reshape U.S. education. Years of reform efforts have wrung change from the public schools, but it has come at a glacial pace. If for-profits turn out to be a viable alternative, they could begin to give parents real school choice for the first time, accelerating the pace of progress.

Big-name investors are subscribing to this vision, lured by the prospect of getting in on the ground floor of an entirely new industry. From J.P. Morgan and Fidelity Ventures to Paul Allen's Vulcan Ventures, a host of backers are sinking millions into the new school companies in the belief that for-profit education is poised for explosive growth. "This is a breakthrough business opportunity," declares Michigan industrialist J.C. Huizenga, who has invested "upwards of $50 million" in National Heritage Academies. Adds Legg Mason Inc. analyst Scott Soffen: "In the near term, you're going to see growth not unlike the Internet."

What's driving the fervor is the belief that competition—driven by the profit motive—can deliver the quality education so many American parents are clamoring for. "We're on the brink of fundamental change," declares former U.S. Education Secretary and onetime Republican Presidential candidate Lamar Alexander, who is on the board of Leeds Equity Partners III, an investment fund specializing in emerging education companies.

NEW CHOICES Leonard Mayo chose a for-profit charter school for son Joshua (left)

STRUGGLES. Despite the almost-messianic rhetoric, though, it's far from clear that for-profit schooling will live up to expectations. Indeed, the companies make dramatic claims. Edison and Advantage both pledge to have most students eventually doing college-level work by the 11th grade. But so far, students at some of these schools are still performing poorly on tests. And because many schools have been open only a year or two, "the jury is still out on



RYDER CHARTER ELEMENTARY SCHOOL / MIAMI Ryder CEO Burns can walk across the street to read to students at the school, built by the trucking company

whether they improve academic achievement" in the long run, says Brookings Institution education expert Tom Loveless.

The very idea of making money from educating schoolchildren also raises hackles. The education Establishment argues that many goals of public education will be compromised by companies whose primary motive is a quarterly profit. Already, they cite examples of for-profits cutting extracurricular activities and turning away the severely disabled. "Educating children is very different from producing a product," argues Bob Chase, president of the National Education Assn., who predicts that for-profits may be just another school reform "fad du jour."

Even the mainstream business community is largely skeptical. Groups such as the Business Roundtable have stayed focused on trying to improve public schools from within, while well-known CEOs, like IBM's Louis V. Gerstner and Boeing Co.'s Phil M. Condit, have thrown their clout in with the nation's governors to set high new standards for student achievement. It's not so much a political stance as a practical choice; under even the most optimistic scenarios, public schools will educate 70% to 80% of Corporate America's future workers for the foreseeable future. With the New Economy already sending companies scrambling for skilled workers, corporate leaders figure they had better try fixing public education first.

Nor have for-profits yet proved that they can make real money. Their basic contention is that public schools have built up a tremendous bureaucratic overhead that can be dramatically slashed. But so far, few companies are profitable. Edison, which in fiscal 1999 lost $49 million on revenues of $133 million, has seen its stock slump nearly 25%, to 14, since its November IPO. And on Jan. 3, Scottsdale (Ariz.)-based Tesseract Group Inc.—which pioneered the concept of for-profit public schools in 1990, when it was known as Education Alternatives Inc.—said Nasdaq was threatening to delist its shares. The company is trading for less than 1, down from a 1993 high of 49, after large losses.

Still, despite the obstacles, for-profits may have come along at just the right time to have a shot at success. Poll after poll shows that education is a top concern for Americans. It's little wonder why. In December, the National Education Goals Report conceded that the U.S. has fallen far short of the aims governors had set a decade ago for 2000. The high school graduation rate hasn't improved at all. And U.S. 12th-graders came in 15th out of 20 developed countries on international math tests, and 12th in science. No surprise that many parents are ready to try almost anything not run by the local school bureaucracy.

GUINEA PIGS. Such concerns have opened the schoolhouse door to profit-making education companies. In response to parental demand for more choice, the states have created charter schools, which are typically started by groups of parents and teachers. They apply for a charter, usually issued by a school board, university, or state agency, and receive tax dollars, but they may then operate independently of the rules that govern most public schools. Charters draw little of the political controversy that is sparked by vouchers, another school reform program that gives parents public money to help send their children to private schools (page 76). Minnesota passed the first charter-school law in

His new online customer service system just came in way under budget.

(Doesn't realize it already needs to be replaced.)

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1990, and the concept has now spread to 36 states. The number of charter schools has soared to 1,700 from fewer than 100 in 1994; it will reach 3,000 by 2002, according to U.S. Education Secretary Richard Riley.

The charter school movement, in turn, has fueled for-profits. The first for-profit contracted directly with a school district when Dade County, Fla., hired Educational Alternatives, now known as Tesseract, in 1990 to operate a troubled Miami public school. Soon, the company won new contracts in Baltimore and Hartford. But after repeated clashes over everything from funding to hiring, the contracts were canceled. "We were the guinea pigs who showed what wouldn't work," recalls Tesseract Chairman John T. Golle.

So far, for-profits are proving adept at marketing to dissatisfied parents. Advantage lures desperate urban parents with school uniforms, strict discipline, and a rigorous curriculum that tells teachers exactly how to teach each lesson. "Their philosophy was exactly what I wanted," says Darlene Vandreuil, whose two children attend Advantage's Abbey Kelley Foster school in Worcester, Mass., where students take Latin beginning in the third grade.

By contrast, Beacon Education Management's middle school in Chelmsford, Mass., is geared to a suburban clientele. It aims to stimulate students to think by scrapping most textbooks in favor of hands-on projects. Recently, students studied a nearby lime quarry, learning to survey it and prepare detailed maps.

"FIRST-RATE." Edison has the most comprehensive approach. The company made a splash in 1992 by hiring former Yale University President Benno Schmidt Jr., now Edison's chairman, to lead a $40 million, three-year effort to develop its program. Edison's schools combine challenging curriculums—such as the highly regarded Success for All reading program—with a rigorous schedule that keeps kids in class 28% longer than the average public school. Starting in third grade, students are given a computer and modem to take home, so they can use "The Common," Edison's intranet, which features a virtual library and other resources. "Edison is a really first-rate company," says Deputy Education Secretary Mike Smith.

Because for-profits are still public schools, some of the experimenting has led to politically charged confrontations that true private schools don't encounter. For example, Michigan-based National Heritage Academies (NHA) is appealing to parents with discipline and traditional values. Every month, students study a different virtue, such as generosity, prudence, and fortitude. Many parents love the results. "This is like the school where I went; it's safe, it's wholesome, there's a healthy atmosphere," says Kim Vander Sluis, a stay-at-home mom with two children at NHA's Vanguard Charter Academy outside Grand Rapids, Mich.

But other parents see a religious school that has no right to taxpayer dollars. For Jeff Seaver, a parent with two kids at Vanguard, the last straw came when he attended a school "moral focus retreat" at which a Baptist minister delivered what he describes as a revivalist sermon. Seaver is now suing NHA for violating the Constitution on church-state grounds.

MULTIPLY THIS. For-profits are also tearing up the rule book on hiring. Michigan's largest for-profit, Leona Group, tapped a former General Motors Corp. marketing manager, Rod Atkins, to be principal of its Voyageur Academy, a Detroit elementary school. Atkins got the job after serving on the school's board, which includes managers from GM and Ford Motor Co. He has no previous teaching experience and hardly acts like a traditional principal. Last year, he fired a kindergarten teacher for poor performance, which almost never happens in unionized public schools. And after discovering many kids were having trouble with multiplication tables, "we decided to put everybody in lockdown from 3:30 p.m. to 5 p.m." for additional work, he says. When parents arrived to pick up their kids, Atkins told them to come back later. They said "fine," he recalls.

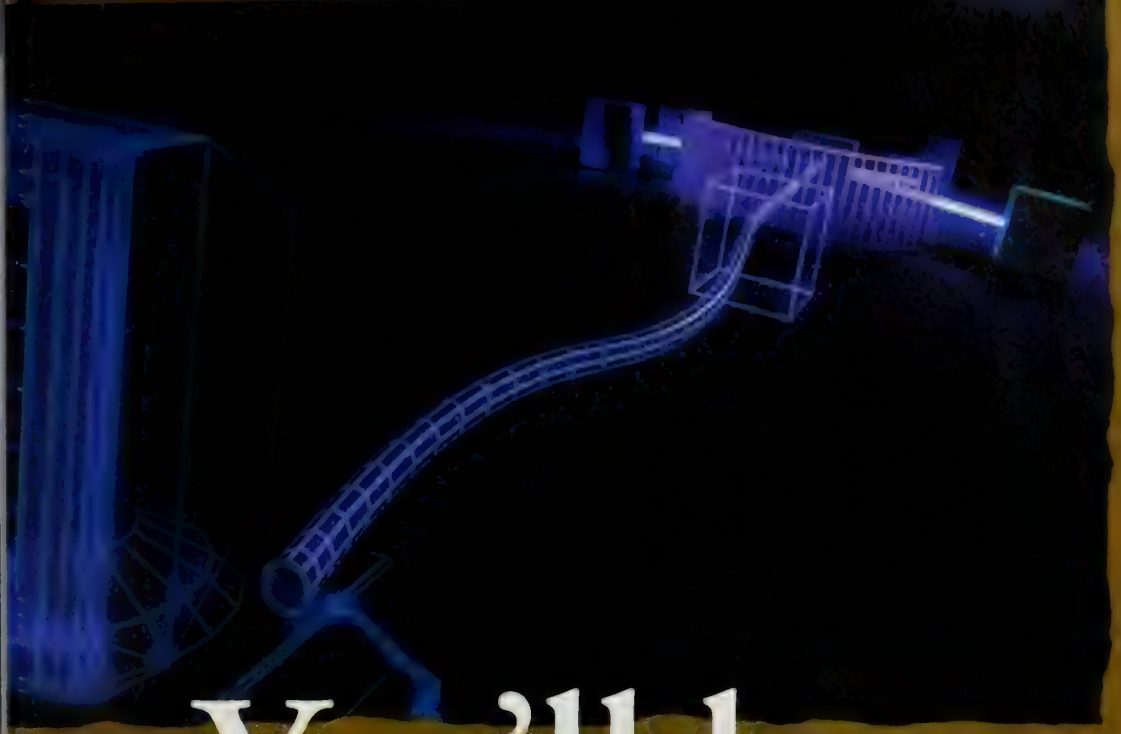
Most for-profits claim such methods are producing impressive results. "After one year, we're showing 10% to 15% gains" on student test scores, says Advantage CEO Steven F. Wilson. National Heritage says its students have been advancing the equivalent of 1.4 grades in a year. Some educators remain dubious. "Each of these developers pulls out its best school and says that's what is happening," says Harry Levin, director of the National Center for the Study of Privatization in Education at Columbia University's Teacher College. Until rigorous studies are done over more time, he cautions, such claims can't fairly be judged. Still, many educators concede that parents often are more involved in for-profit schools, something studies show is key to improved performance.

Of course, for-profits can't solve all of the obstacles that can be thrown in the way of learning. The problems plaguing many U.S. schools go way beyond the

FOR-PROFIT CHARTERS: A PRIMER

INNOVATIONS	OBSTACLES
New or varied curriculums designed to improve student performance	Huge capital costs: Unlike public schools, must pay for their own buildings
Longer school days and school years	Political opposition from the education Establishment
Most don't have teachers' unions, but offer merit pay and stock options	Far fewer "frills," such as extracurricular activities
Less spending on administrative and central-office expenses	Fewer programs for severely disabled / special-education students
More parental involvement	More difficulty attracting experienced teachers
Freedom from traditional school bureaucracy	Huge startup costs mean most companies are losing money

DATA: BUSINESS WEEK



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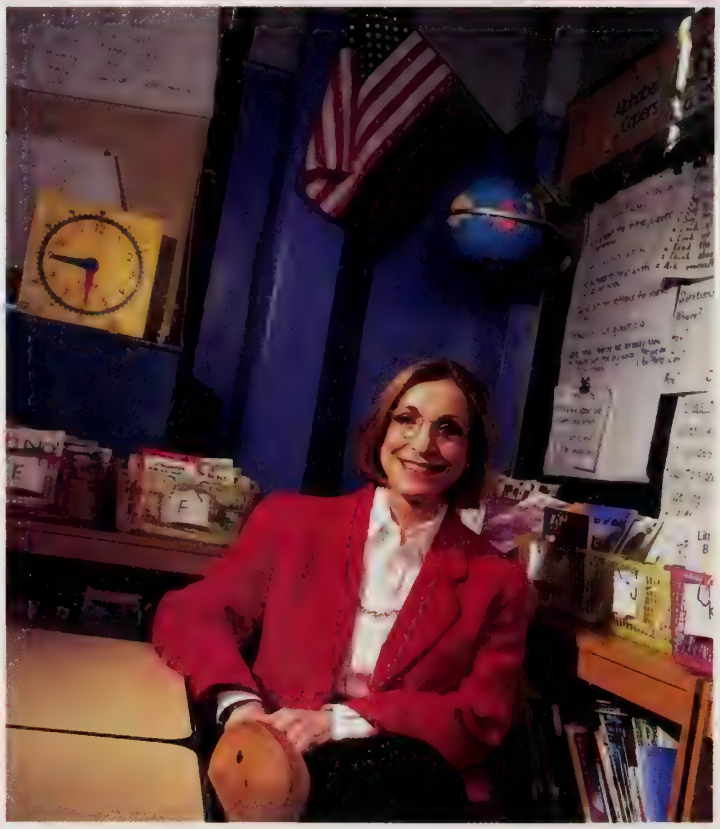
classroom. Despite all the public concern, most students in affluent and even many middle-class areas get a reasonably good education. The real disasters lie in urban areas, especially low-income ones. Better teaching methods and fewer bureaucrats won't necessarily overcome the difficulties students bring to school from drugs, crime, and broken homes. For-profit schools face "the same kind of problems as public schools in very tough areas," says American Federation of Teachers President Sandra Feldman.

The challenge for the private companies is that parental demand for choice is the most urgent in the worst-off schools. Initially, critics feared that for-profits would try to "cream" the best students away from public schools. But that hasn't happened. In the suburbs, parents already pay a housing premium in areas with good schools. But in the big cities, parents are screaming for options. "That's why Advantage is going exclusively after the urban market," says CEO Wilson.

BETTER PAY. Another rap against for-profits: inexperienced teachers. Despite the stock options and merit pay that many for-profits offer teachers, the companies often pay less than public schools, where low salaries have long impaired recruiting. Take Edison's Boston Renaissance, a K-8 school that serves 1,150 mostly low-income, minority youths in Boston. When it opened in 1995, "we started with a significant number of inexperienced teachers," many of whom soon left, says David Knapp, chair of the school's board. And while Edison sent students home with computers, "people didn't know how to use them, and they lived in areas where there's vandalism and theft, so only one-third were returned," says Tom Wesner, a private-school principal who taught at Renaissance for three years. By 1998, most of the school's students were failing the state math test.

That year, Edison brought in Roger Harris, a respected Boston middle-school principal, to run the place. To help recruit experienced teachers, Harris shortened the school year to 191 days from 205, boosted salaries by 7%, and begun offering multiyear contracts—all moves, ironically, that make it more like a public school. Teacher turnover has dropped, and test scores have begun to improve.

Posting profits, though, is still a problem. Many for-profits charge hefty management fees, about 12% of a school's revenues in the case of Philadelphia's Mosaica, for example. To cover the fee and still run the school, they expect to spend less on administration. Sure, public schools are less efficient than Corporate America, but "claims that half of school spending is wasted on administration is hyperbole," warns Edison's Whittle. He figures the average district spends about 27¢ of every dollar on its central office. As Edison expands, Whittle says economies of scale will help him slice that to just 8¢. In Edison's case, most of the savings will be plowed back into the classroom. That would leave Edison with a slim 7% profit, concedes Whittle, who is counting on explosive revenue growth to fuel Edison's stock.



TEACHERS' ADVOCATE Feldman says for-profits can't magically fix problems in tough districts

But this model allows no funds for building new schools. Whittle figures such capital costs can eat up 20% of the annual funding for-profits receive. Typically, for-profits get the same per-child operating budget as public schools but no capital funding. To cope, many use buildings public schools would never consider. Advantage's Abbey Kelley Foster school, for one, is housed in an old tool-and-die factory, which cost Advantage just $2.5 million to refurbish.

HIGH HOPES. Charter Schools USA, just two years old, is pioneering what CEO John Hage calls "second-generation charter schools" that rely on clients to pay for school buildings. Ryder Systems Inc. agreed to pay $4 million to build Charter's new elementary school, which opened last fall across the street from the trucking company's South Florida headquarters. In exchange, the children of Ryder employees get preference. Ryder CEO M. Anthony Burns says the school is a way to make Ryder "a preferred employer." The problem: The scheme only works because Florida law allows the school to give Ryder employees first crack at slots in the school. Not all states do. And the idea could prove controversial, since it amounts to private parties buying rights to attend a public school. Ultimately, the growth of for-profits could be stunted unless politicians were willing to give them access to taxpayer-backed bonds

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and other capital sources enjoyed by public schools.

Meanwhile, many for-profits are cutting corners elsewhere. Few offer a school-lunch program or bus transportation for students in outlying towns. Expensive extracurricular programs such as sports are limited. And most aren't equipped to handle students with severe special education problems, which public schools are obligated to serve. "It is a lot more expensive to educate a child who is disabled or emotionally troubled," says Education Secretary Riley.

Many for-profits say it's this very cost consciousness, plus strong revenue growth, that is bringing them close to profitability. "We can break even with just 30 schools," says Beacon President Ronan—a number he expects to reach within two years. But Merrill Lynch warns that Edison may not make money until 2004, when it will be running nearly 300 schools. Still, such rapid expansion has prompted Merrill to give Edison its highest "buy" rating, arguing that Edison "can grow both its revenues and earnings at nearly 70% [a year] for the foreseeable future."

"WE'RE HEMORRHAGING." The more they succeed, the more many educators worry that for-profit charters are draining money from the public system. "We're hemorrhaging," moans James Caradonio, superintendent of the Worcester (Mass.) school district, which includes schools run by Edison and Advantage. He figures he'll lose $1.6 million this year to the for-profit schools. And in Grand Rapids, 351 students have been lost to charters. "If we continue to lose students, it will jeopardize the current public schools," complains Sue Maturkanich, president of the local teacher's union.

Advocates say that's the point: For-profits—and the charter-school movement in general—are causing the kind of fiscal pain that forces some public systems to adapt to parents' needs. In Lansing, Mich., which has lost 10% of its enrollment to charters—half run by for-profits—and to Michigan's interdistrict choice program, the public schools have instituted all-day kindergarten, an honors program in middle school, and a "community school" in cooperation with Michigan State University. And in Mesa, Ariz., where 1,200 students have defected, the public schools are now offering an early-kindergarten program and have opened an alternative high school. The city is even taking out print and movie-theater ads to get the word out.

Clearly, the for-profit industry is already a force in the reshaping of U.S. education. And even as the debate rages over the schools' effectiveness, they continue to catch on, district by district. It's not impossible to imagine the day when school boards will offer families a menu of choices among for-profit, nonprofit, and traditional public schools. Of course, the for-profits will have to deliver on their grandiose promises for that to happen. But if they come close, U.S. education could be in for a revolution.

By William C. Symonds in Boston, with Ann Therese Palmer in Grand Rapids, Mich., Dave Lindorff in Philadelphia, Jessica McCann in Phoenix, and bureau reports

GOING TO BAT FOR VOUCHERS

Wal-Mart heir John Walton leads a crusade for taxpayer-funded school reform

When it comes to education, billionaire John T. Walton is as iconoclastic as his famous father, Wal-Mart Stores Inc. founder Sam Walton. In fact, Sam would have applauded John's philosophy for fixing America's public schools: Experiment with new ideas, and let consumers vote with their wallets.

While that's hardly revolutionary stuff in retailing these days, Walton's zealous pursuit of competition in education puts him at the center of a national debate on education reform. His deep-seated belief in taxpayer-funded vouchers—which allow parents to choose even private religious schools—has made him a leading foe of teachers' unions and civil liberties groups. But after spending millions of Walton family dollars on education reforms, including charter schools, scholarships, and teacher training, Walton says he is convinced that taxpayer-funded vouchers must be part of the reform mix. "Most of the serious reform efforts, including charters, were not implemented until voucher legisla-

NUBIA LEADERSHIP ACADEMY/ SAN DIEGO Walton has poured millions into his cause

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Walton say his goal is "a world-class education" for every child and vows to stay out of for-profit ventures so that others won't confuse his motives

tion became a serious prospect" in the 1990s, says Walton, who attended Bentonville (Ark.) public schools and whose son goes to a public school in Wyoming.

A college dropout who once worked as a crop-duster and a boat builder, Walton, 53, seems an unlikely leader for this educational revolution. Shy and reserved, he normally shuns the spotlight. And although he holds a stake in Wal-Mart that's worth some $20 billion and sits on the company's board, he has no operating position. Still, it's his name as much as his money that helps the voucher effort. "Having someone like John Walton in this movement makes it easier for other business people to enter the fray," says Clint Bolick, litigation director of the Institute for Justice, a conservative group that promotes vouchers.

Certainly, Walton is putting his money where his mouth is. Last April, he ponied up $50 million to help Theodore J. Forstmann kick off the national Children's Scholarship Fund. Modeled on other private voucher efforts that Walton and Forstmann have backed, the fund drew 1.25 million applications from families around the country for 40,000 four-year scholarships that allow poor children to attend private elementary schools.

Critics call the private scholarships a stalking horse for publicly funded vouchers. And Walton concedes as much, insisting that private vouchers will never go far enough. Only with publicly funded ones will "we secure the future of charter schools and all the other reforms," says Walton. At his urging in 1994, the Walton Family Foundation gave $2 million to expand CEO America, a group that supports private scholarship programs around the country and lobbies for public vouchers.

"MINOR OBSTACLE." Despite the ample funds, voucher supporters suffered a serious setback in December. A federal judge ruled that a voucher program in Cleveland, where most of the children signed up to attend religious schools, violated the Constitution's separation of church and state (table). They're allowed to continue, pending appeal, but both sides predict that the case will land before the U.S. Supreme Court for its first ruling on such plans. Meanwhile, the Wisconsin Supreme Court upheld a similar program, while state supreme courts in Maine and Vermont have ruled that voucher programs must exclude parochial schools. Walton says he is not disheartened by the Cleveland decision. "There have been so many successes in the effort to empower parents across the country that the decision has to be seen as a pretty minor obstacle," he insists.

Detractors argue that Walton's voucher efforts, public and private, undermine the very public schools he claims to want to save by siphoning off resources and motivated parents. "Vouchers don't provide effective, fair competition" for public schools, says Elliot M. Mincberg, legal director of People for the American Way, a civil-liberties group in Washington, D.C. He argues that private schools can choose their students and keep out those who are toughest to educate. "Schools are not like toothpaste. No toothpaste chooses its customers."

BACKING OFF. While Walton doesn't agree with his critics, they have prompted him to back away from one investment. In 1997, Walton stepped down from the board of Tesseract Group Inc., a struggling for-profit, and sold his 3% stake at a $1 million loss after critics accused him of pushing vouchers to potentially funnel public money to his for-profit investments. He now says he won't be involved in such for-profit ventures so that others won't confuse his motives.

That stance could soon force Walton to leave his nonprofit School Futures Research Foundation, which operates 10 charter schools. The San Diego-based group, backed by nearly $10 million in Walton money since 1994, is planning at least 14 new charter schools by 2001. But to expand as quickly as it would like, School Futures may become a for-profit entity, able to tap the capital markets. At that point, Walton says he'll step out. Look out, voucher opponents. That could leave him more time for his other favorite reform.

By Wendy Zellner in San Diego

VOUCHERS: THE TUSSLE CONTINUES

FLORIDA Last fall, Florida became first in the nation to offer vouchers statewide for students in "failing" schools—only two this year. Opponents are suing to stop it.

CLEVELAND In December, a federal judge ruled the city's taxpayer-funded voucher program unconstitutional. Started in 1995, the program continues for nearly 4,000 children while the state appeals. Cleveland was first to allow vouchers to be used for parochial schools.

MILWAUKEE More than 8,000 children attend private schools with taxpayer funds. The state Supreme Court found the program constitutional in 1998.

MAINE/VERMONT Federal appeals court upholds decision excluding religious schools from a long-standing tuition program in Maine aimed at rural students. Vermont Supreme Court also rules that state's tuition program may not be expanded to include parochial schools.

DATA: BUSINESS WEEK

BusinessWeek ONLINE

For a Q&A with John Walton, see the Feb. 7 issue online at www.businessweek.com

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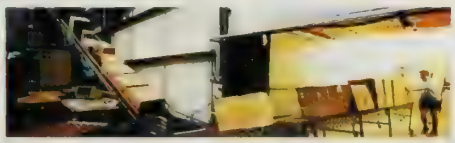

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EXCHANGES

GETTING OFF THE NYSE FLOOR

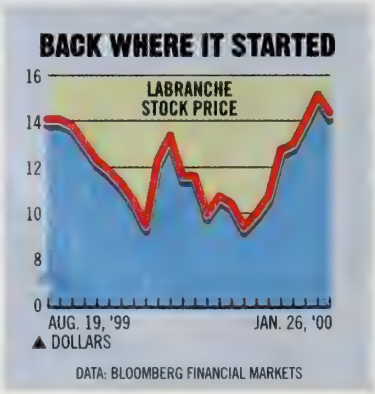
Specialist LaBranche is on the Web and hot for electronic trading. Is this the Big Board's future?

In a live Webcast hosted on its Web site on Jan. 25, LaBranche & Co., the first New York Stock Exchange specialist firm to go public, announced its fourth-quarter earnings. This Webcast and a previous one have plugged LaBranche's staggering profitability.

Moreover, they have sent the message that the firm is serious about using technology to diversify its functions, and maintain its role as a key market player. The primary task of specialists is to provide capital, or liquidity, to the stocks they handle to maintain stable order flow. Orderly markets can increasingly be achieved by matching orders electronically, but most specialists still have their feet planted firmly on the nonvirtual floor.

"Specialists must diversify and evolve to remain viable in this environment," says Steven Wallman, a former Securities & Exchange commissioner. Other big specialists are in a diversification mode, too. Spear, Leeds & Kellogg, for instance, owns an electronic communications network (ECN) and trades over-the-counter stocks through a subsidiary. But experts say that LaBranche's short-order actions capture the industry's urgent need for change and show how it must evolve.

STOCK FEARS. Still, no one is flocking to LaBranche's stock. Although it has rebounded recently, at 14⅛ it still is trading barely above its offering price of $14 on Aug. 19th. Says Chairman Michael LaBranche: "It's largely because we're the first in our industry to go public, the first to tell our story." But a visit to the Yahoo! Inc. message board for LaBranche's stock reveals other investor concerns. One message reads: "What happens when member firms begin to protest the NYSE's auction system and begin to take order flow away? LaBranche is dead." Another reads: "I think LAB needs to diversify... and fast... or else they're going to remind us of the Fuller brush man." In fact, some say that LaBranche's poor stock showing could mean that the NYSE's proposed stock offering will prove to be a dud.



But LaBranche's stock, which sells at only a 13 price-earnings ratio based on this year's expected earnings, does not reflect the firm's riches. Specialists make commissions when they match buy and sell orders. But their largest source of revenue comes from trading for their own account. The firm's most recent earnings report showed that profits rose to $15.6 million, or 12%, in the last quarter over the previous year. It has greatly benefited from the Big Board's increased trading volume. And LaBranche's profitability is compelling. In 1999, the firm had pretax margins of 50%. Goldman Sachs & Co. and Merrill Lynch & Co., in comparison, had margins of 32% and 19%, respectively. In 1998, the firm's 36 managing directors received an average of $1.7 million in compensation.

These revelations by LaBranche, which is in charge of trading stocks such as AT&T, Merck, and Exxon Mobil, have not made fellow NYSE specialists happy. "You've got this parochial industry that's used to holding its cards close to the vest. LaBranche has upset the

tleman's club," says a source close to 76-year-old firm.

aBranche may be kicking more sand heir faces. It is gearing up to trade sdaq stocks by yearend and wants to n alliances with ECNs to provide liqity. "No one wants to send an order newhere where they won't get it exeed. ECNs need to channel orders to a l of liquidity, and that's us," says Branche. Other plans are to increase after-hours trading presence and deop an e-platform to trade foreign cks before the U. S. markets open.

SEUM? "Kill or be roadkill" is the ssage to specialists, especially in this rcurial environment where it's likely t the NYSE's auction system will gely be replaced by electronic trading ues, though some form of the system l continue to exist. In order to not ome a "bowling alley" or "museum," some have predicted, the NYSE is ing action. In the last few months, ler pressure from the SEC, the NYSE axed Rules 500 and 390—regulas that make it easier for companies lelist and for member firms to trade tain issues away from a traditional hange. It has started an electronic tem that electronically matches and cutes orders in increments of 1,000 res or less.

The Nasdaq, also facing competition, start trading NYSE stocks by July ough an alliance with Primex Trading, ch features an electronic system that geared specifically to compete with Big Board's auction system. To comthis onslaught, NYSE specialists have n in a consolidation frenzy. There now 25 specialist firms, down from in 1986 due to consolidation. "Size ans more capital. And more capital ws them to take bigger risks," says llman.

aBranche has made five acquisitions smaller specialists in the last three rs. Its most recent ones, Henderson thers Holdings Inc. and Webco Seities Inc., should be completed by bruary, making LaBranche the gest NYSE specialist firm in terms of ume. The top three specialists now trol more than 50% of the NYSE's ume. And a NYSE rule change now als specialists to compete for listings. s war out there," says Dean Eber, an analyst at Putnam Lovell, De rdiola and Thornton.

But if LaBranche can partner with s and continue its technology push, firm won't strictly be a NYSE speist anymore, but, as LaBranche himcalls it, a "trading corporation" and market maker in different markets." e investors get this, the stock may from the floor to the ceiling.

By Marcia Vickers in New York

SUMMERS AND GREENSPAN: *Who hits rates harder?*

INTEREST RATES

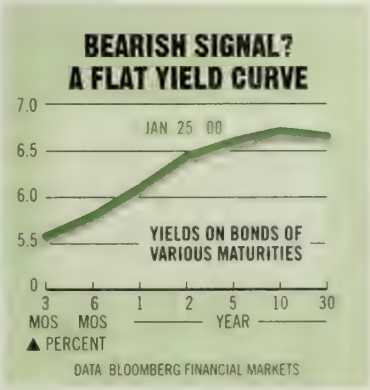
IGNORE THAT RATE CURVE

Narrowing of T-bond yields no longer means a slowdown

Has the Fed already tightened too much? That's the message that interest rates seem to be flashing. Since December, the Treasury yield curve—which normally shows interest rates rising smoothly as maturities lengthen—has gotten flatter. The 30-year Treasury bond's yield even dipped below that of 10-year notes in mid-January, and stayed there, the longest stretch of inverted yields since 1994. For the past 20 years, such a shift in rates has heralded a slowdown. Today's yield curve could be deciphered as a warning that the Federal Reserve's three rate hikes since June have already clobbered the economy.

But it's time for a new codebook. The ominous-looking droop in 30-year Treasury yields is a phony signal, economists say, because it results from the Treasury Dept.'s decision to use federal budget surpluses to buy bonds back from investors. More broadly, Fed-watchers say, financial-market changes during the 1990s have scrambled the yield curve's message about future economic activity.

Scratch the 30-year bond, and today's yield curve paints a fairly benign picture (chart). The 0.86-percentage-point difference between yields on three-month T-bills and two-year notes anticipates more Fed tightening—perhaps lifting the Fed's target rate for federal funds from 5.5% to 6.25%. But the flatter rates for longer maturities mean that "the Fed will get a gradual slowdown without having to tank the economy," says Joshua N. Feinman, chief economist at Deutsche Asset Management.



What most worries traditional readers of the yield curve is the dip in rates on 30-year bonds. The yield on the Treasury's bellwether security has dropped from 6.71% on Jan. 12 to 6.64%—below the 6.70% yield of the 10-year note. But that shift coincided with Treasury Secretary Lawrence H. Summers' Jan. 13 announcement that Treasury would buy back $30 billion in bonds this year. Summers hinted that buybacks would concentrate on longer-term bonds. So investors bid up the price of long Treasuries, driving down their yield.

It's unusual for Summers' impact on the yield curve to outweigh that of Fed Chairman Alan Greenspan. But it's no fluke that the yield curve is losing its predictive powers. When academics and Fed officials started using it for forecasting in the late 1980s, "very few businesses could borrow money for 10 years or longer," says Louis Crandall, chief economist at economic consultants R. H. Wrightson & Associates. But financial derivatives, which let short-term borrowers lock in long-term rates, "have made the economy more sensitive to bond rates," Crandall says. Now, when the yield curve inverts, the drop in long rates stimulates borrowing, which can nip a recession in the bud.

The curve's promise of a soft landing doesn't come with any guarantee. Lenders and consumers have shrugged off the Fed's last three rate hikes. But rising rates will start to put on the brakes, especially if they draw nervous money out of stocks and into bonds. If not, the Fed will have to hit the economy harder to slow it down, inflicting pain that will surprise the bond market as much as everyone else.

By Mike McNamee in Washington

COMMENTARY

By Gary Weiss

SORRY, *THE SOPRANOS* IS OFF-KEY

It has caused what just may be the most overblown media frenzy of the last quarter century—and not only because *The New York Times* said it "just may be the greatest work of American popular culture of the last quarter century." I am referring, of course, to *The Sopranos*, the Home Box Office series that has given organized crime—the make-believe kind—a new lease on life. Its popularity is no surprise. Organized crime has fascinated viewers since *Musketeers of Pig Alley* hit the nickelodeons in 1912. But *The Sopranos* has truly struck a nerve, largely because of what *The Times* described as its "hyper-realism."

HBO-MADE GUY: *Gandolfini as Tony Soprano*

But how real is *The Sopranos*? Well, the opening of the new season certainly exudes authenticity. It begins on Wall Street, where wiseguys have been staking a claim. Tony Soprano's cousin Christopher has gotten a brokerage license by having someone take the test for him, as happened quite a bit in real life. He is running a brokerage house, where two thugs beat up a broker for not selling the house stocks. One "alleged" wiseguy I know insists that the scene was taken right out of the court record from his stock-manipulation case.

WOE IS THEM. But don't confuse dramatic realism with reality. I talked about *The Sopranos* with some people who have seen the real Mob in action. Some love it, as I do. Some misguided souls hate it. But they are unanimous about one thing: The real Mob would be a totally different HBO series from *The Sopranos*. It would be grimier. It would be nastier. And there would be nothing the least bit adorable about a real-life Tony, who is portrayed in the series as a sympathetic family man whom viewers can relate to, even though he has, well, a peculiar job. Says one trader who knows mobsters well: "They're a bit like a cross between my old Italian uncle and Charles Manson."

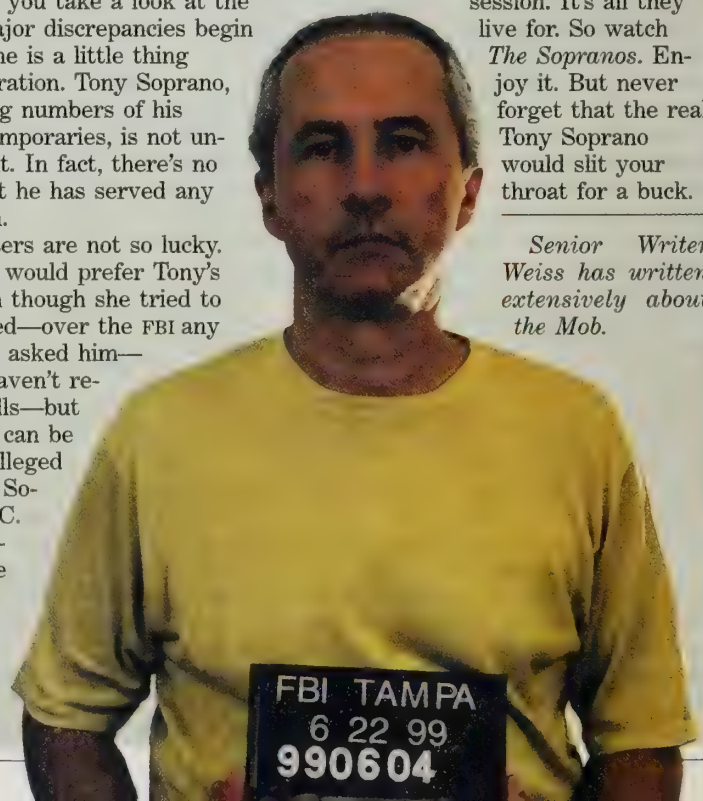
James Gandolfini is great as the pensive New Jersey wiseguy—but the writers have seen to it that he is no Charles Manson, even making him a tad sympathetic when he strangles an informant. A far different picture of life among the real Sopranos can be seen when you take a look at the real thing. Major discrepancies begin to emerge. One is a little thing called incarceration. Tony Soprano, unlike growing numbers of his real-life contemporaries, is not under indictment. In fact, there's no indication that he has served any time in prison.

Real mobsters are not so lucky. Most of them would prefer Tony's mother—even though she tried to have him killed—over the FBI any day. I haven't asked him—his lawyers haven't returned my calls—but I'm sure that can be said for one alleged real-life Tony Soprano. Philip C. Abramo is described by the FBI as a capo (Tony's rank) in New Jersey's DeCavalcante crime family. He is in jail awaiting trial on securities-fraud charges in Tampa, having allegedly done in real life some of what Christopher is doing on TV. The court record paints a picture of the reputed capo that is a good deal more Charles Manson than old Italian uncle.

WATCH IT. Prosecutors maintain that Abramo heard that a former employee of a brokerage firm he allegedly controlled, a fellow named Jeff Supinsky, had testified before the Tampa grand jury investigating Abramo. Prosecutors allege Abramo promptly ordered Supinsky's murder. Accounts of the alleged plot differ, but one version relayed by prosecutors says "both Supinsky and his family were to be killed in their New York apartment with hand grenades." Supinsky was swiftly put in the witness-protection program. Abramo's lawyer denied the allegations at a court hearing.

The alleged Supinsky murder plot is a reflection of the real Mob—murderous, and, above all, greedy. For real-world mobsters, cash—not "family"—is all that matters. It is an obsession. It's all they live for. So watch *The Sopranos*. Enjoy it. But never forget that the real Tony Soprano would slit your throat for a buck.

Senior Writer Weiss has written extensively about the Mob.



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Mediaplex	$ 82,800,000	Petstore.com	$ 97,000,000
china.com china.com corporation	$ 96,600,000	china.com china.com corporation	$ 34,000,000
US INTERACTIVE	$ 53,072,500	icollector plc	£ 8,000,000
ITXC	$ 84,000,000	SEQUOIA	$ 25,000,000
NetRatings	$ 78,200,000	JUNIORNET	$ 70,300,000

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equity
has all the right answers

Venture Investments Made by Lehman Brothers	
VerticalNet, Inc.	IPO in 2/99
marimba	IPO in 4/99
Active	IPO in 8/99
VA LINUX Systems	IPO in 12/99
adauction.com Opportunity CLICKS	Private
CORIO	Private

With Internet businesses issuing equity at an astounding pace, Lehman Brothers has emerged as one of the few global investment banks that can help e-businesses access all aspects of the public and private equity markets. From providing equity through Lehman Brothers Venture Partners to arranging private equity placements, to lead managing some of 1999's most notable Internet IPOs, Lehman Brothers is a leader in raising equity for e-businesses globally. The Firm's unique combination of creativity, industry expertise, research leadership, and global distribution power have made Lehman Brothers the portal to the equity capital markets for today's fast-growing Internet industry.

LEHMAN BROTHERS

A Tradition of Innovation

CLOSED-END FUNDS

SO MANY DISCOUNTS —AND A GOOD MANY DEALS

Closed-end bargains abound in both equity and bond funds

Bargain-hunters find slim pickin's on Wall Street nowadays unless they stop at the closed-end fund counter. Nearly 90% of the funds, which look like mutual funds but are bought and sold like stocks, trade at prices that are actually below the net asset value of their holdings. In fact, 42% of the equity funds and 6% of the bond funds trade at discounts greater than 20%.

But buying cheap is dear in the end if the quality is poor, so investors still need to inspect what they're buying. To help you do that, we bring you the closed-end version of the BUSINESS WEEK Mutual Fund Scoreboard. The scoreboard reports on fund performance, both by net asset value (NAV) and by the gain or loss in market price of the shares. We also look at essentials such as investment category, asset size, expenses, and risk. We grade the funds from A to F based on their three-year NAV returns, adjusted for risk. Eight equity and 24 bond funds earned the top grade (table). We carry data for 120 equity funds and 70 bond funds in the magazine. At www.businessweek.com/investor, you can find all those plus 284 more bond funds.

ROLLER COASTER. As with conventional mutual funds, high returns alone do not necessarily translate into a high BUSINESS WEEK rating. Look at the Turkish Investment Fund, which raced ahead of the pack last year, gaining 274.1% in NAV and 306.4% in share price. Those kinds of gains do not come without risk, and indeed, the history of the fund shows what a roller-coaster ride investors have had. In 1998, the fund lost about one-third of its value. All told, Turkish Investment earned a C, or average, for its risk-adjusted return.

No fund is attractive unless the outlook for the underlying investments are promising. On that account, closed-end fund analyst Paul J. Mazzilli of Morgan Stanley Dean Witter recommends the France Growth Fund. Corporate restructuring and earnings growth, Mazzilli says, should allow the French stock market to outperform the other European bourses in 2000. (France Growth also rates an A from BUSINESS WEEK.) The fund trades at a 16.5% discount from NAV. For the emerging markets, Mazzilli's favorite is the India Fund, with a huge 31.5% discount to NAV. "India has one of the world's fastest-growing economies," he says, and is a promising technology play.

But investors don't have to go abroad for good deals. Adams Express Co. and General American Investors, both with A's from BUSINESS WEEK, are recommended by Mazzilli as well. Both large-cap funds had strong performance last year and beat the Standard & Poor's 500-stock index over the last three—a feat few mutual or closed-end funds accomplished. Adams, in particular, sports rock-bottom expenses of just 0.22%, not a whole lot more than an S&P 500 index fund.

The Best of the Bunch

Funds that earned A's for risk-adjusted total return*

EQUITY FUNDS	BOND FUNDS
ADAMS EXPRESS	BLACKROCK N.Y. INS. MUNICIPAL 2008
ALLIANCE ALL-MARKET ADVANTAGE	ELLSWORTH CONVERTIBLE GROWTH & INC.
BERGSTROM CAPITAL	HYPERION 2002 TERM TRUST
FRANCE GROWTH	MINNESOTA MUNICIPAL TERM TRUST
GABELLI EQUITY	MSDW MUNI. INCOME OPPORTUNITY
GABELLI GLOBAL MULTIMEDIA	MSDW MUNI. INCOME OPPORTUNITY II
GENERAL AMERICAN INVESTORS	MSDW MUNI. INCOME OPPORTUNITY III
SPAIN	NUVEEN INS. CALIF. SEL. TAX-FREE INCOME
	NUVEEN INS. N.Y. SEL. TAX-FREE INCOME
BOND FUNDS	NUVEEN MUNICIPAL INCOME
AMERICAN SELECT	NUVEEN SELECT MATURITIES MUNICIPAL
APEX MUNICIPAL	NUVEEN SELECT TAX-FREE INCOME
BANCROFT CONVERTIBLE	NUVEEN SELECT TAX-FREE INCOME 2
BLACKROCK CALIF. INS. MUNICIPAL 2008	NUVEEN SELECT TAX-FREE INCOME 3
BLACKROCK CALIF. INV. QUAL. MUNICIPAL	TCW CONVERTIBLE SECURITIES
BLACKROCK INSURED MUNICIPAL	TCW/DW TERM TRUST 2000
BLACKROCK MUNICIPAL TARGET	VAN KAMPEN CONVERTIBLE SECURITIES

*1997-99, NAV appreciation plus reinvestment of dividends and capital gains before taxes

DATA: MORNINGSTAR INC.

There are no closed-end Interi funds, but some other sectors offer g opportunities. H&Q Life Sciences vestors, which specializes in biote stocks, gained 78% in market value l year and still trades at a discount 18.8%. Hancock Bank & Thrift Opp tunity Fund lost 13.9% in value l year as bank stocks stumbled. Sho interest rates peak soon and bank me ers start anew, the fund, with a 12. discount, could be a shrewd play.

Perhaps the best bargains are in bo funds. Discounts are at levels not seen at least five years, says Thomas Herzfeld of Miami-based Thomas Herzfeld Advisors. Herzfeld, the dean closed-end investing, suggests the "2 solution"—a basket of bond funds selli at 20% discounts. "The discounts will half of that in six month he says. "Even if rates go some more, the discount giv you a substantial cushion."

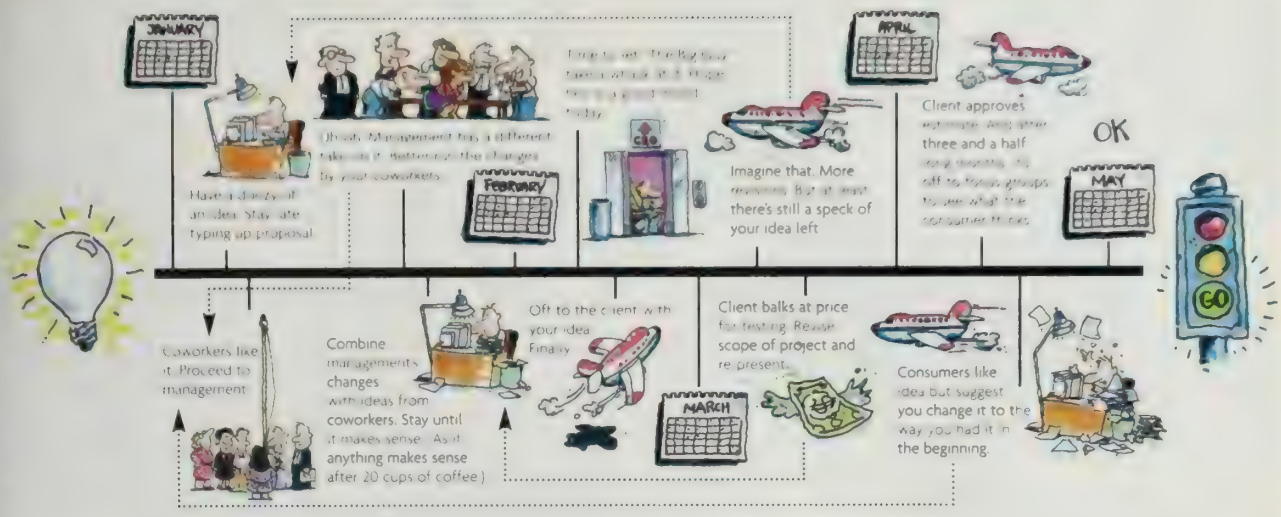
Bond-fund discounts are large, says Herzfeld, that expects that some fund ma agers will seek to fix that converting the closed-e funds into mutual funds, th wiping out the discount a allowing investors to get and out at NAV. One su move under way is Indepe dence Square Income Secu ties, which is to hold a shar holder vote on open-endi during the first quart "Management supports it, s it should have no trouble passing," says Herzfeld. Sti the fund sells at a 10.8% di count to NAV.

Discounts on municip bond funds have shrun somewhat in January, b they are still large. That puts the curre yields for many muni funds near 7%— worth nearly 11% for an investor in th 36% tax bracket. Jon Maier, PaineWebbe Inc.'s closed-end fund analyst, suggest Nuveen Premium Income Municip Fund, with a yield of 7.2%, Van Kampe Municipal Opportunity Trust, 7%, an Van Kampen Muni Income Trust, 7.44% as attractive buys among the tax-fre closed-ends. Ready to go bargain-hunt ing? The sale starts on page 92.

By Jeffrey M. Laderma in New Yor

BusinessWeek ONLINE

The following tables highlight 190 funds. These, plus 284 more, can be found at www.businessweek.com/investor



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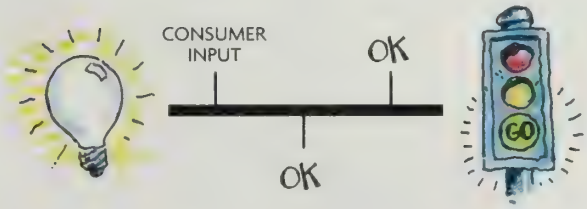

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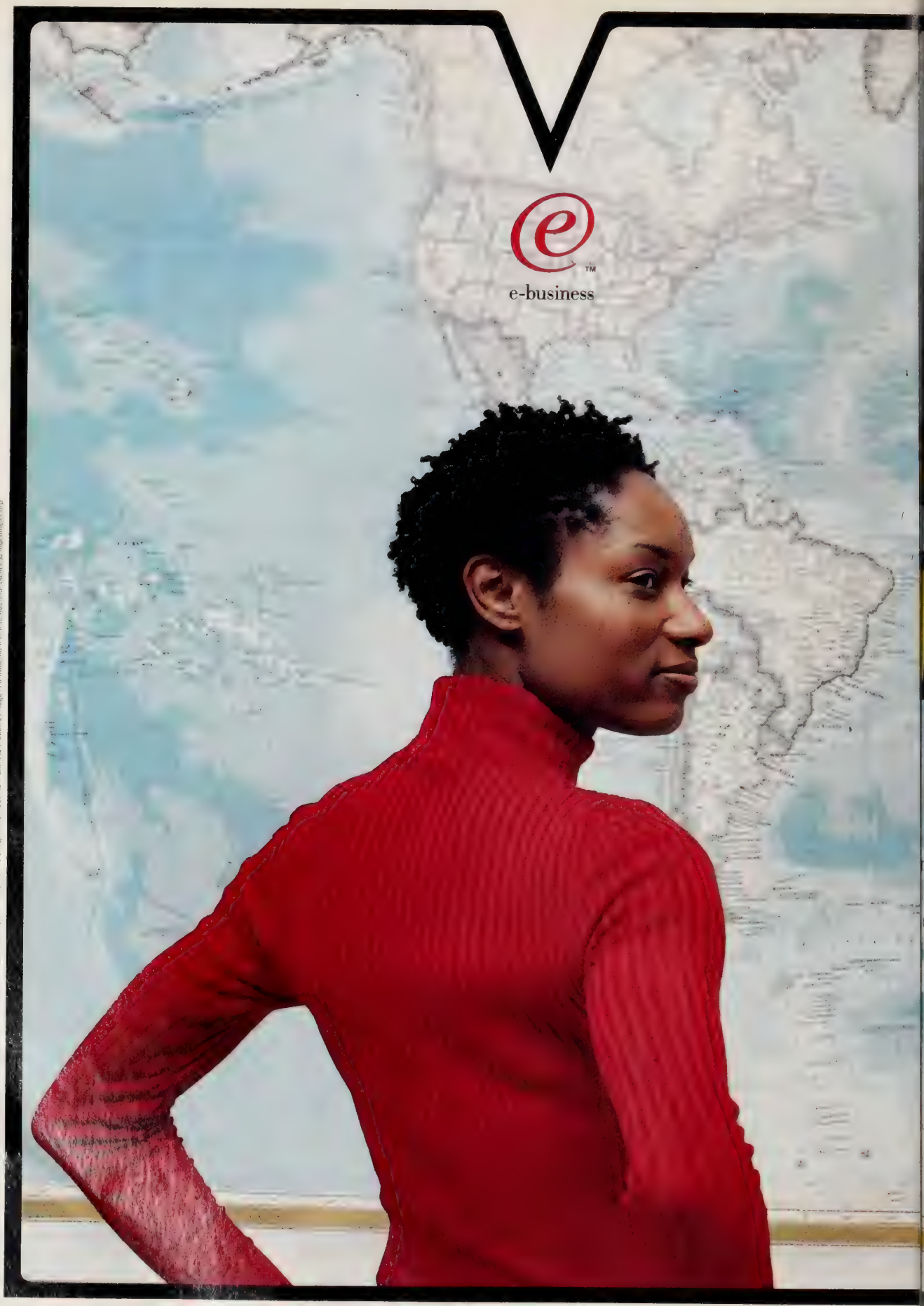

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MUTUAL FUND SCOREBOARD

Closed-End Equity Fund

FUND	RATING	CATEGORY	RISK	SIZE ASSETS $MIL.	FEES EXPENSE RATIO (%)	PERFORMANCE NAV RET (%) 1 YR.	NAV RET (%) 3 YRS.	SHARES RET. (%) 1 YR.	SHARES RET. (%) 3 YRS.	YIELD (%)	HISTORY RESULTS VS ALL FUNDS	PREMIUM/DISCOUNT DIFFERENCE FROM NAV 1999 HIGH	LOW	1/21/00*
ADAMS EXPRESS	A	Large-cap Blend	Low	1757.2	0.22	25.3	26.4	27.6	26.4	1.2	1 1 1	–14.9	–19.6	–15.5
ALLIANCE ALL-MARKET ADVANTAGE	A	Large-cap Growth	Average	156.0	2.52	36.7	44.6	15.0	43.4	10.1	1 1 1	6.6	–14.8	–13.4
ARGENTINA	C–	Latin America	Average	140.8	1.48	40.1	11.5	37.7	4.0	2.5	1 4 1	–17.5	–30.0	–26.6
ASA LIMITED	D	Precious Metals	High	191.1	1.15	53.5	–7.5	25.8	–15.1	3.2	4 4 1	9.3	–19.0	–24.3
ASIA PACIFIC	C–	Pacific ex-Japan	High	216.8	1.56	77.0	0.8	68.8	–1.4	1.2	4 4 1	–3.3	–25.2	–24.8
ASIA TIGERS	C–	Pacific ex-Japan	High	203.5	1.74	72.1	0.9	57.4	–1.7	0.7	4 4 1	–10.7	–26.3	–25.9
AUSTRIA	C	Europe	Average	90.0	1.68	38.0	20.1	40.9	26.0	7.9	4 1 1	–6.6	–24.3	–23.2
AVALON CAPITAL	B	Large-cap Growth	Average	11.4	NA	4.0	16.8	1.7	20.6	2.8	1 1 2	7.6	–21.3	–1.3
BAKER FENTRESS	B	Large-cap Value	Very low	830.3	0.76	–2.2	8.2	21.4	16.3	6.9	1 1 3	–3.4	–27.5	–1.7
BERGSTROM CAPITAL	A	Large-cap Growth	Low	218.4	0.74	48.5	35.6	47.9	34.5	0.1	1 1 1	–6.8	–17.2	–12.5
BLUE CHIP VALUE	B	Large-cap Value	Low	161.1	0.94	5.9	17.6	6.4	14.8	5.3	1 1 2	1.5	–8.2	0.8
BRAZIL	C–	Latin America	High	278.9	1.56	64.0	13.5	74.4	9.5	2.4	1 4 1	–9.9	–25.1	–23.5
BRAZILIAN EQUITY	D	Latin America	High	33.9	2.07	51.9	–5.4	57.6	–7.4	0.0	2 4 1	–4.6	–23.9	–23.6
CENTRAL EUROPEAN EQUITY	C–	Europe	Average	160.2	1.17	13.5	1.4	8.5	0.3	0.0	1 4 1	–16.8	–26.5	–21.9
CENTRAL EUROPEAN VALUE	C–	Europe	Average	5.9	2.09	5.5	–0.9	15.1	–0.2	0.0	4 4 2	–9.3	–22.8	–18.3
CENTRAL FUND OF CANADA	C–	Precious Metals	Average	71.9	NA	2.6	–4.0	22.1	–1.7	0.2	4 4 2	12.2	–8.9	–5.8
CENTRAL SECURITIES	B+	Mid-cap Value	Low	509.1	0.51	30.8	23.4	23.9	13.9	1.3	1 1 1	–13.5	–22.4	–20.7
CHARTWELL DIVIDEND & INCOME		Large-cap Value		NA	NA	1.2	NA	–17.8	NA	12.1	2	5.3	–21.7	–19.0
CHILE	C–	Latin America	High	215.1	1.62	26.4	3.8	29.8	–3.7	0.6	1 4 1	–18.7	–28.3	–25.8
CHINA	D	Pacific ex-Japan	High	96.4	2.22	38.1	–2.3	30.1	–4.6	1.0	4 4 1	–13.7	–27.7	–24.1
CLEMENTE GLOBAL GROWTH	B+	World	Low	78.8	1.91	32.2	27.7	42.5	38.8	0.0	1 1 1	–4.0	–16.7	–13.1
COHEN & STEERS REALTY INCOME	C	Real Estate	Low	20.2	NA	–7.0	–2.1	–8.7	–5.3	9.9	1 4 4	23.8	1.4	6.7
COHEN & STEERS TOTAL RETURN REALTY	C	Real Estate	Low	81.5	NA	–6.6	–0.8	–10.1	–0.1	9.3	1 4 4	13.4	–1.7	3.2
DELAWARE DIVIDEND & INCOME	B	Dom. Hybrid	Low	212.2	0.80	–7.0	4.9	–27.9	0.6	12.2	1 4 4	15.0	–19.0	–11.0
DELAWARE GLOBAL DIVIDEND & INCOME	B	Dom. Hybrid	Low	101.1	1.03	2.2	7.0	–18.3	–0.5	12.3	1 4 2	–0.5	–20.9	–16.4
DUFF & PHELPS UTILITIES INCOME	B	Utilities	Low	2015.9	1.46	–8.5	9.5	–20.1	6.8	9.5	1 1 4	17.1	–5.2	–2.8
EMERGING MARKETS INFRASTRUCTURE	C–	Div. Emg. Mkts.	Average	159.1	2.07	59.0	6.5	57.3	3.7	1.4	3 4 1	–14.8	–25.9	–22.3
EMERGING MARKETS TELECOM.	C	Div. Emg. Mkts.	Average	95.2	2.09	85.9	21.3	83.2	18.1	0.0	1 4 1	–10.6	–24.3	–22.7
ENGEX	D	Small-cap Growth	High	10.3	5.78	116.8	10.0	145.5	17.1	0.0	4 4 1	4.9	–24.7	6.2
EQUUS II	C–	Dom. Hybrid	Average	110.0	4.57	–13.8	–3.8	–18.9	–5.0	0.0	1 4 4	–24.3	–35.2	–34.6
EUROPE	B+	Europe	Low	200.1	1.27	20.5	19.3	15.9	20.6	0.6	1 1 1	–0.8	–14.4	–14.3
EUROPEAN WARRANT	B+	Europe	Average	232.2	1.77	45.2	46.7	27.5	49.0	0.0	1 1 1	0.1	–25.1	–26.1
FIDELITY ADVISOR KOREA	D	Pacific ex-Japan	Very high	51.8	2.30	134.5	24.2	95.7	6.6	0.0	4 1 1	–5.7	–28.3	–25.9
FIRST AUSTRALIA	C	Pacific ex-Japan	Average	160.4	1.61	24.2	4.6	28.8	4.7	5.1	4 3 1	–8.9	–24.3	–18.1
FIRST FINANCIAL	C–	Financial	Average	225.4	0.91	–4.2	–0.7	–11.9	–6.9	1.0	1 4 3	9.7	–20.3	–8.9
FIRST ISRAEL	B	Foreign	Average	78.3	2.06	52.7	23.6	68.2	25.1	2.2	1 4 1	–10.9	–21.7	–15.8
FIRST PHILIPPINE	F	Pacific ex-Japan	Very high	89.8	1.91	6.4	–25.5	8.5	–25.0	0.0	4 4 2	–9.1	–23.9	–19.0
FOREIGN & COLONIAL EMG. MIDDLE EAST	B	Foreign	Low	47.7	2.91	47.8	17.6	36.3	15.8	0.0	1 4 1	–11.0	–26.2	–20.9
FRANCE GROWTH	A	Europe	Low	238.8	1.38	34.9	31.0	37.1	34.7	0.4	1 1 1	–12.6	–22.0	–16.5
GABELLI EQUITY	A	Mid-cap Blend	Very low	1235.5	1.15	22.6	21.8	20.5	22.9	9.3	1 1 1	3.8	–4.8	–2.1
GABELLI GLOBAL MULTIMEDIA	A	Communication	Very low	153.4	2.53	104.0	54.3	114.4	59.8	4.9	1 1 1	–5.8	–17.9	–6.0
GENERAL AMERICAN INVESTORS	A	Large-cap Blend	Very low	885.6	0.95	35.9	34.0	38.7	37.1	1.0	1 1 1	–4.0	–12.6	–8.9
GERMANY	B	Europe	Average	215.8	1.15	19.7	24.0	22.7	28.6	5.3	1 1 1	–6.7	–15.1	–8.6
GLOBAL SMALL CAP	B+	World	Low	61.4	1.37	79.6	27.9	119.8	36.2	5.7	3 3 1	–4.6	–22.0	–7.2
GREATER CHINA	F	Pacific ex-Japan	Very high	108.6	2.59	36.1	–2.0	36.7	–5.0	0.0	4 4 1	–15.0	–27.6	–27.8
H&Q HEALTHCARE INVESTORS	C	Health	Average	175.7	1.46	46.9	19.4	56.2	11.9	0.0	2 3 1	–20.2	–29.5	–20.6
H&Q LIFE SCIENCES INVESTORS	C	Health	Average	111.3	1.62	46.3	15.9	78.0	17.3	0.0	4 3 1	–10.0	–29.3	–18.8
HANCOCK BANK & THRIFT OPPORTUNITY	C	Financial	Average	1009.5	1.47	–14.1	11.2	–13.9	12.0	1.6	1 4 4	–6.8	–20.4	–12.2
HANCOCK PATRIOT GLOBAL DIVIDEND	B	Mid-cap Value	Very low	121.9	NA	–11.9	4.3	–24.5	–0.9	10.6	1 1 4	–10.5	–24.5	–20.6
HANCOCK PATRIOT PREFERRED DIVIDEND	B	Mid-cap Value	Very low	101.0	NA	–10.7	3.7	–16.1	–2.2	8.8	1 1 4	–10.5	–19.5	–13.6

NA=Not available
*Last NAV reported Jan. 7, 2000.

DATA: MORNINGSTAR, INC., CHICAGO, IL.

How to Use the Tables

Closed-end funds are publicly traded investment companies. Their results are measured two ways: one, by the change in net asset value (NAV), which is generated by the fund's manager; the other, by the change in the shares' market price. Total returns, which include dividends and capital gains, are shown for one- and three-year periods. The three-year figure is an average annual return. All returns are pretax.

BUSINESS WEEK RATING
Ratings are based on three-year risk-adjusted performance of the fund's portfolio. A rating is calculated by subtracting a fund's risk-of-loss factor from total return. Equity funds are rated against each other, and to earn an above-average rating, must beat the S&P 500 on a risk-adjusted basis. For ratings, municipal bond funds are separated from other bond funds.

A	SUPERIOR
B+	VERY GOOD
B	ABOVE AVERAGE
C	AVERAGE
C–	BELOW AVERAGE
D	POOR
F	VERY POOR

RISK
For each fund, the monthly Treasury bill return is subtracted from the monthly NAV return in each month of the rating period. When a fund has underperformed Treasury bills, this monthly result is negative. The sum of these negative numbers is then divided by the number of months. The result is a negative number, and the greater its magnitude, the higher the risk of loss.

EXPENSE RATIO
Fund expenses for 1999 as a percent of average net assets. Ratio may include interest expense.

YIELD
Income earned during 1999, as a percentage of yearend NAV per share, adjusted for capital gains.

MATURITY
The average maturity of the securities in a bond fund, weighted according to their market value.

HISTORY
A fund's relative performance during 1997, 1998, and 1999. From left to right, the numbers designate which quartile the fund was in for each period: 1 for the top quartile; 2 for the second quartile; 3 for the third quartile; and 4 for the bottom quartile.

PREMIUM/DISCOUNT
The market price of closed-end funds is either less than the value of their securities, a discount, or more, a premium, to their NAVs.

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MUTUAL FUND SCOREBOARD

Closed-End Equity Funds

FUND	RATING	CATEGORY	RISK	SIZE ASSETS $MIL	FEES EXPENSE RATIO (%)	PERFORMANCE NAV RET (%) 1 YR.	NAV RET (%) 3 YRS.	SHARES RET (%) 1 YR.	SHARES RET (%) 3 YRS.	YIELD (%)	HISTORY RESULTS VS ALL FUNDS	PREMIUM/DISCOUNT DIFFERENCE FROM NAV 1999 HIGH	LOW	1/21/00
HANCOCK PATRIOT PREMIUM DIVIDEND	B+	Mid-cap Value	Very low	159.6	1.15	–8.6	7.2	–15.9	–0.2	8.7	1 1 4	–5.8	–21.3	–18.6
HANCOCK PATRIOT PREMIUM DIVIDEND II	B	Mid-cap Value	Very low	194.9	NA	–11.1	5.9	–20.2	–0.1	9.4	1 1 4	–10.2	–24.4	–20.8
HANCOCK PATRIOT SELECT DIVIDEND	B	Mid-cap Value	Very low	164.3	NA	–10.9	5.6	–19.5	1.6	10.0	1 1 4	–1.9	–19.6	–15.6
HERZFELD CARIBBEAN BASIN	C	World	Average	9.1	NA	12.5	10.6	22.9	8.6	0.0	1 4 1	27.8	–15.8	5.2
INDIA	B	Pacific ex-Japan	Average	381.8	NA	162.3	45.3	165.3	30.0	0.0	4 1 1	–19.5	–34.2	–31.5
INDIA GROWTH	C	Pacific ex-Japan	Average	134.6	NA	108.0	29.5	96.8	10.7	0.0	4 5 1	–18.8	–37.0	–33.2
INDONESIA	F	Pacific ex-Japan	Very high	16.6	4.21	67.8	–24.8	60.6	–17.3	0.8	4 4 1	62.4	21.4	20.7
INVESCO GLOBAL HEALTH SCIENCES	B+	Health	Low	574.6	1.21	3.1	19.3	–9.5	19.9	9.8	1 1 2	–2.9	–21.0	–20.6
IRISH INVESTMENT	C	Europe	Average	126.7	1.37	–1.5	13.2	–17.1	9.9	0.8	1 1 2	–5.1	–23.9	–23.8
ITALY	B+	Europe	Average	149.6	1.22	31.7	32.0	34.4	33.5	1.2	1 1 1	–13.7	–19.0	–16.6
JAKARTA GROWTH	F	Pacific ex-Japan	Very high	12.6	4.66	44.4	–31.2	21.4	–27.4	0.0	4 4 1	42.5	3.2	1.6
JAPAN EQUITY	C	Japan	Average	78.3	1.19	75.1	8.4	37.2	0.7	0.0	4 1 1	34.4	–14.5	–10.7
JAPAN OVER-THE-COUNTER EQUITY	C	Japan	Average	92.5	1.80	193.9	29.2	127.7	22.0	0.0	4 1 1	21.1	–22.5	–24.1
JARDINE FLEMING CHINA REGION	F	Pacific ex-Japan	Very high	62.0	2.49	57.8	–6.0	54.2	–8.9	0.5	4 4 1	–13.8	–30.1	–29.5
JARDINE FLEMING INDIA	C	Pacific ex-Japan	Average	103.5	2.77	139.2	32.9	134.5	18.6	0.0	2 4 1	–21.1	–36.2	–25.8
KOREA	D	Pacific ex-Japan	High	652.9	1.36	142.3	20.5	83.8	6.1	0.0	4 1 1	3.8	–28.8	–28.0
KOREA EQUITY	D	Pacific ex-Japan	High	42.3	NA	78.2	4.3	41.8	–7.3	0.0	4 1 1	–3.2	–29.1	–26.4
KOREAN INVESTMENT	D	Pacific ex-Japan	Very high	77.0	2.93	147.7	17.0	110.6	5.0	0.0	4 1 1	–8.8	–29.7	–27.6
LATIN AMERICA EQUITY	C–	Latin America	High	101.5	2.41	69.3	4.8	75.6	1.0	0.0	1 1 1	–16.9	–27.0	–26.2
LATIN AMERICA INVESTMENT	C–	Latin America	High	101.8	2.39	57.7	6.1	62.0	2.5	3.8	2 4 1	–16.4	–27.1	–26.3
LATIN AMERICAN DISCOVERY	C–	Latin America	High	133.5	1.93	73.7	18.6	74.1	14.3	0.8	1 4 1	–8.5	–24.3	–20.6
LIBERTY ALL-STAR EQUITY	B+	Large-cap Blend	Low	1326.0	1.00	10.5	19.0	–4.5	12.1	5.8	1 1 1	–4.0	–21.4	–20.4
LIBERTY ALL-STAR GROWTH	B	Large-cap Blend	Low	187.1	1.22	19.5	20.5	9.1	19.1	5.4	1 1 1	–9.6	–21.3	–17.9
MALAYSIA	F	Pacific ex-Japan	Very high	49.6	2.32	75.8	–34.1	76.6	–25.1	0.0	4 4 1	70.5	5.3	14.6
MEXICO	C–	Latin America	High	992.9	0.93	60.9	13.6	58.3	8.8	1.1	1 4 1	–17.2	–29.2	–27.1
MEXICO EQUITY & INCOME	C–	Latin America	High	129.4	1.46	57.5	15.6	74.7	15.6	1.4	1 4 1	–7.3	–24.3	–19.9
MFS SPECIAL VALUE	B	Small-cap Blend	Low	101.6	NA	7.2	12.9	4.8	7.4	10.2	1 1 1	16.9	–3.0	–0.4
MORGAN FUNSHARES	B	Large-cap Growth	Low	9.2	2.00	–5.3	11.0	–3.6	14.7	0.0	1 1 3	13.8	–16.5	–9.3
MORGAN GRENFELL SMALLCAP	C	Small-cap Growth	Average	107.4	1.56	36.7	16.8	45.5	18.4	0.0	1 4 1	–10.8	–19.7	–14.7
MORGAN STANLEY AFRICA INVESTMENT	C	Foreign	Average	182.0	1.79	26.7	4.7	26.7	0.6	2.9	4 4 1	–18.0	–29.4	–26.3
MORGAN STANLEY ASIA-PACIFIC	C	Div. Pacific/Asia	Average	723.0	1.42	75.0	8.7	69.2	6.9	0.3	4 4 1	–10.2	–25.7	–24.9
MORGAN STANLEY EMERGING MARKETS	C	Div. Emg. Mkts.	Average	298.4	1.96	105.1	17.6	100.8	12.4	0.0	4 4 1	–14.5	–25.1	–24.2
MORGAN STANLEY INDIA INVESTMENT	C	Pacific ex-Japan	Average	419.9	1.97	144.3	36.9	144.4	20.2	0.0	4 3 1	–22.3	–32.4	–29.5
MORGAN STANLEY RUSSIA & NEW EUROPE	D	Europe	High	60.7	2.51	48.1	2.7	72.0	4.0	0.0	1 4 1	–5.1	–25.0	–20.8
NAIC GROWTH	B+	Large-cap Blend	Low	19.5	0.83	8.3	17.5	–2.1	5.1	5.6	1 1 1	–5.3	–24.0	–23.6
NATIONS BALANCED TARGET MATURITY	B+	Dom. Hybrid	Very low	51.7	1.13	–2.7	8.2	–11.8	6.0	4.7	1 1 3	–8.9	–15.1	–13.2
NEW GERMANY	B	Europe	Low	441.0	0.98	–0.3	12.6	3.6	14.3	0.4	2 1 2	–11.0	–22.5	–25.1
PAKISTAN INVESTMENT	D	Pacific ex-Japan	High	29.6	2.69	45.2	–7.8	32.8	–19.2	2.8	1 4 1	–10.4	–29.8	–24.2
PETROLEUM & RESOURCES	C	Nat. Resources	Average	543.5	0.31	17.4	7.4	7.4	2.7	2.2	1 4 1	–6.0	–20.9	–16.9
PORTUGAL	C	Europe	Average	83.3	1.50	–2.8	18.2	–3.7	21.0	0.7	1 1 3	–4.9	–17.9	–13.7
RENAISSANCE CAP. GROWTH & INCOME III		Mid-cap Blend		42.0	NA	40.2	16.9	69.1	26.5	1.6		–7.7	–24.9	–22.1
ROC TAIWAN	C–	Pacific ex-Japan	High	235.4	1.77	30.5	7.3	36.4	6.5	0.0	1 4 1	–6.6	–23.2	–18.2
ROYCE FOCUS	C	Small-cap Value	Average	47.4	1.62	8.2	6.7	–0.7	5.1	0.0	1 4 1	–11.7	–22.8	–16.8
ROYCE MICRO-CAP	C	Small-cap Value	Low	135.5	1.18	12.2	11.0	4.1	8.4	0.7	1 4 1	–10.1	–19.7	–16.5
ROYCE VALUE	C	Small-cap Value	Average	505.9	1.42	10.6	13.4	4.8	11.1	7.4	1 3 1	–8.6	–18.1	–16.5
SALOMON BROTHERS	B+	Large-cap Value	Low	1877.1	0.52	23.3	23.2	34.7	28.8	4.9	1 1 1	5.9	–10.7	–2.5
SCUDDER NEW ASIA	C	Div. Pacific/Asia	Average	121.7	1.94	106.4	18.7	112.7	18.8	0.0	4 3 1	–11.4	–22.2	–20.8
SINGAPORE	D	Pacific ex-Japan	High	87.5	2.23	47.8	–3.9	38.1	–7.8	0.0	4 1 1	0.6	–20.8	–20.4
SOURCE CAPITAL	B	Mid-cap Value	Low	364.0	0.87	23.1	17.8	15.4	15.8	8.3	1 3 1	12.2	–8.6	–3.2
SOUTHEASTERN THRIFT & BANK	C	Financial	Average	100.2	1.46	–10.8	11.4	–18.5	8.1	2.0	1 4 4	–7.1	–25.7	–14.4
SOUTHERN AFRICA	C–	Foreign	Average	71.2	2.10	71.0	13.1	59.9	9.6	0.3	2 4 1	–12.6	–23.9	–19.1
SPAIN	A	Europe	Average	139.1	1.44	22.5	35.2	17.5	38.7	8.0	1 1 1	–4.5	–16.3	–10.1
SWISS HELVETIA	B	Europe	Low	427.5	1.09	–2.5	19.2	–8.4	17.5	0.0	1 1 3	–15.1	–22.1	–21.8
TAIWAN	C–	Pacific ex-Japan	High	291.4	2.29	47.5	8.3	63.0	8.8	0.0	4 4 1	–3.1	–21.6	–9.9
TAIWAN EQUITY	C–	Pacific ex-Japan	High	57.6	2.63	64.3	19.0	86.1	21.6	0.0	2 4 1	–2.7	–23.0	–4.3
TEMPLETON CHINA WORLD	D	Pacific ex-Japan	High	187.9	1.68	38.9	–6.9	37.6	–10.9	2.7	4 4 1	–14.3	–27.4	–28.1
TEMPLETON DRAGON	D	Pacific ex-Japan	High	704.3	1.59	40.8	–3.9	46.9	–6.4	11.6	4 4 1	–14.4	–26.5	–28.0
TEMPLETON EMERGING MARKETS	C–	Div. Emg. Mkts.	High	229.6	1.70	56.2	9.8	42.6	6.4	0.8	4 4 1	26.3	–15.0	–9.6
TEMPLETON EMERGING MARKETS APPREC.	C	Int. Hybrid	Average	59.7	1.88	40.8	7.9	33.3	6.1	4.8	4 4 1	–8.3	–24.3	–20.9
TEMPLETON RUSSIA	F	Europe	Very high	53.6	2.14	68.3	–7.7	135.1	5.7	1.9	1 4 1	54.3	6.5	8.7
TEMPLETON VIETNAM & SOUTHEAST ASIA	D	Pacific ex-Japan	High	61.8	2.23	37.6	–4.1	36.7	–6.8	0.0	4 1 1	–12.0	–26.3	–23.9
THAI	F	Pacific ex-Japan	Very high	72.3	2.32	50.3	–27.2	33.0	–20.5	0.0	4 1 1	116.5	36.8	33.3
THAI CAPITAL	F	Pacific ex-Japan	Very high	22.9	3.83	15.7	–27.8	25.8	–21.3	0.0	4 1 1	86.6	28.0	39.1
THERMO OPPORTUNITY	D	Small-cap Blend	High	15.0	NA	4.5	–10.4	20.6	–13.5	0.0	4 4 2	–12.3	–31.2	–17.7
TRI-CONTINENTAL	B+	Large-cap Blend	Low	3915.2	0.58	9.4	19.6	11.2	21.4	1.5	1 1 1	–10.8	–18.9	–16.7
TURKISH INVESTMENT	C	Foreign	High	52.5	1.71	274.1	60.5	306.4	50.0	0.2	1 3 1	–10.0	–21.0	–19.9
TUXIS CORP.	B+	Dom. Hybrid	Very low	12.4	NA	4.0	6.5	–20.4	1.4	13.9	4 2 2	–1.8	–24.3	–21.1
Z-SEVEN	C	World	Average	18.4	1.50	–2.4	5.4	–3.3	–1.6	0.6	3 2 3	9.0	–5.3	–4.0
ZWEIG	B	Dom. Hybrid	Low	727.7	1.12	12.9	13.4	3.0	8.2	11.8	1 3 1	–3.8	–17.5	–14.4
ZWEIG TOTAL RETURN	B+	Dom. Hybrid	Very low	747.4	0.97	3.6	8.5	–18.9	3.1	12.6	2 1 2	7.3	–17.6	–16.9

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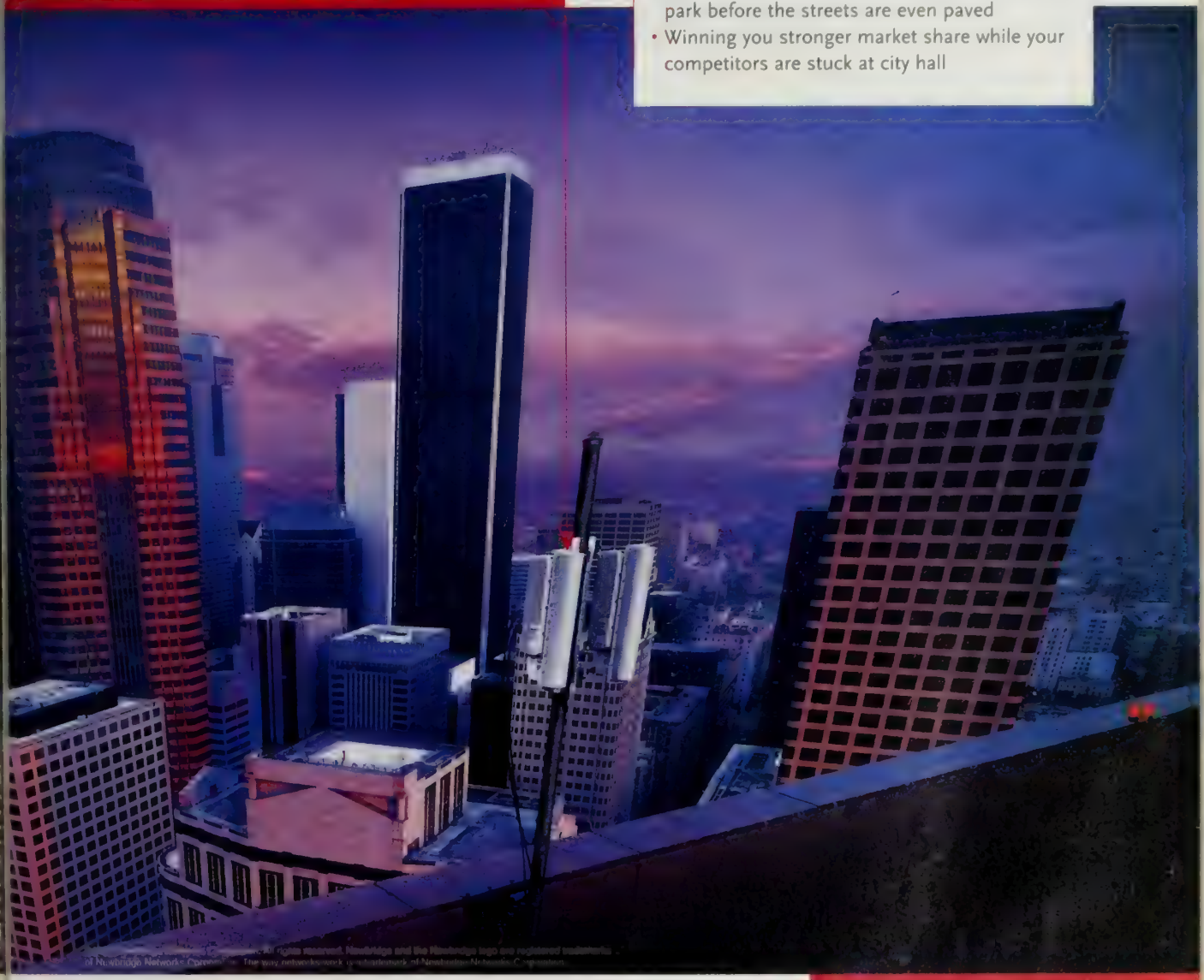

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FUND	RATING	CATEGORY	RISK	SIZE	FEES	PERFORMANCE				PORTFOLIO		HISTORY	PREMIUM/DISCOU		
				ASSETS $MIL	EXPENSE RATIO (%)	NAV RET (%) 1 YR.	NAV RET (%) 3 YRS.	SHARES RET. (%) 1 YR.	SHARES RET. (%) 3 YRS.	YIELD (%)	MAT. (YRS.)	RESULTS VS. ALL FUNDS	DIFFERENCE FROM NAV 1999 HIGH	DIFFERENCE FROM NAV LOW	DIFFERENCE FROM NAV 1/21
ACM GOVERNMENT INCOME	F	Multisector	Very high	449.8	1.12	–3.7	0.2	–21.7	–5.3	13.1	13.4	1 4 3	11.9	–18.1	4.
ACM GOVERNMENT SECURITIES	F	Multisector	Very high	597.1	1.08	–2.8	0.9	–14.7	–1.5	14.1	13.8	1 4 3	5.7	–19.5	–9.
ALLIANCE WORLD DOLLAR GOVT. II	F	Emg. Mkts. Bond	Very high	678.8	1.31	34.6	3.8	11.6	0.2	14.5	16.1	1 4 1	19.7	–18.9	–13.
AMERICAN SELECT	A	Interm. (Gen.)	Low	155.5	NA	3.7	9.2	8.3	12.1	8.2	5.1	2 1 2	–2.9	–10.6	–8
APEX MUNICIPAL	A	Muni. Ntl. Long	Very low	198.4	NA	–3.6	4.5	–10.7	4.8	7.6	21.5	2 3 3	–0.6	–10.1	–9
BANCROFT CONVERTIBLE	A	Convertibles	High	102.9	1.10	14.6	16.4	2.8	11.8	3.4	5.9	1 1 1	–12.2	–22.6	–20
BLACKROCK CALIF. INS. MUNI. 2008 TERM	A	Muni. Calif. Long	Low	177.9	NA	–1.0	5.7	–8.4	3.3	5.6	8.8	3 1 2	–4.5	–15.4	–12.
BLACKROCK CALIF. INVMNT. QUALITY MUNI.	A	Muni. Calif. Long	Low	12.7	NA	–2.6	5.5	–3.1	8.7	5.9	13.2	2 2 3	9.3	2.2	6
BLACKROCK INCOME	C	Interm. (Gen.)	High	489.9	1.01	–2.4	6.5	–9.7	4.9	9.8	21.9	1 2 3	–9.7	–19.9	–16
BLACKROCK INSURED MUNICIPAL	A	Muni. Ntl. Long	Very low	127.8	NA	0.3	5.1	–12.9	3.5	6.6	7.8	3 3 2	4.2	–14.0	–10
BLACKROCK INVESTMENT QUALITY MUNI.	C	Interm. (Gen.)	High	939.5	0.85	–2.5	5.5	–5.5	7.8	5.8	13.5	2 2 3	–5.1	–11.8	–6.
BLACKROCK MUNCIPAL TARGET TERM	A	Muni. Ntl. Interm.	Very low	280.5	0.80	0.3	4.7	–8.5	4.4	6.3	8.2	4 3 2	0.8	–12.2	–8.
BLACKROCK N.Y. INS. MUNI. 2008 TERM	A	Muni. N.Y. Long	Low	203.2	NA	–1.3	5.3	–6.9	4.6	5.8	7.9	3 2 2	–1.7	–10.5	–6.
BLACKROCK NORTH AMERICAN GOVT. INC.	C	International	High	431.4	0.88	3.0	6.7	–1.9	5.2	9.2	18.0	3 1 2	–12.2	–20.4	–17.
BLACKROCK STRATEGIC TERM TRUST	B	Interm. (Gen.)	Average	566.7	NA	–2.3	6.1	0.7	8.8	4.9	11.9	3 1 3	–4.5	–9.3	–6.
BLACKROCK TARGET TERM TRUST	B	Short (Gen.)	Low	961.9	NA	1.1	5.4	3.5	8.5	4.8	13.8	4 1 2	–1.7	–4.9	–2.
BLACKROCK 2001 TERM TRUST	B	Short-Term	Low	1347.4	0.59	0.3	5.6	1.9	8.5	4.1	9.5	3 2 2	–2.9	–6.8	–4.
DREYFUS STRATEGIC MUNICIPAL BOND	C	Muni. Ntl. Interm.	Low	447.5	0.81	–6.1	2.2	–19.1	–1.8	7.8	21.8	4 3 3	4.7	–14.7	–7.
DREYFUS STRATEGIC MUNICIPALS	B	Muni. Ntl. Interm.	Low	586.8	0.85	–4.9	3.1	–19.4	–2.6	7.4	23.1	4 2 3	–0.2	–16.6	–12.3
ELLSWORTH CONVERTIBLE GR. & INC.	A	Convertibles	High	97.3	1.10	13.4	16.9	–0.3	11.3	3.5	5.6	1 1 1	–11.7	–23.8	–21.5
FIRST AUSTRALIA PRIME INCOME	F	International	Very high	1145.8	1.47	8.6	–2.1	1.3	–7.2	14.3	5.7	4 4 1	4.2	–19.3	–17.9
HIGH INCOME OPPORTUNITY	C-	High Yield	High	735.0	1.18	2.3	5.2	–10.5	–0.8	12.0	8.3	2 4 2	–1.7	–20.5	–14.9
HYPERION 2002 TERM TRUST	A	Interm. Govt.	Low	414.7	0.83	7.3	9.7	6.6	12.1	10.4	14.3	2 1 1	–6.0	–9.6	–7.0
KEMPER MUNICIPAL INCOME	C	Muni. Ntl. Interm.	Low	471.6	0.70	–6.2	2.6	–25.5	–2.8	8.3	21.5	4 3 3	8.8	–11.2	–4.9
MANAGED HIGH-INCOME	C-	High Yield	High	434.7	1.17	2.7	5.4	–12.8	–1.5	12.2	8.3	2 4 2	0.7	–20.5	–16.8
MANAGED MUNICIPALS	D	Muni. Ntl. Long	Average	428.6	0.96	–6.9	2.6	–14.3	–2.0	6.6	21.5	3 3 4	–8.5	–17.2	–12.6
MFS CHARTER INCOME	C	Multisector	Average	667.9	NA	1.2	5.3	–10.7	2.3	9.2	11.0	3 3 2	–1.6	–19.6	–18.2
MFS GOVERNMENT MARKETS INCOME	C	Multisector	Low	471.9	NA	–1.8	4.2	–7.3	0.8	8.1	13.8	4 1 3	–11.8	–17.3	–14.6
MFS INTERMEDIATE INCOME	C	Multisector	Low	1013.6	0.91	–0.9	4.2	–4.4	1.8	8.3	12.6	4 2 2	–9.6	–15.1	–13.2
MFS MULTIMARKET INCOME	C-	Multisector	High	664.2	1.05	4.4	4.9	–7.3	–0.5	10.2	10.0	3 4 2	–9.5	–21.9	–17.9
MINNESOTA MUNICIPAL TERM TRUST	A	Muni. S.S. Long	Very low	63.3	NA	–0.5	3.9	–8.6	4.1	6.8	13.9	4 3 2	3.3	–6.9	–7.2
MSDW MUNICIPAL INCOME OPPORT.	A	Muni. Ntl. Long	Very low	177.0	0.96	–1.7	5.1	–16.1	4.4	7.8	19.5	3 2 2	12.7	–6.7	–1.6
MSDW MUNICIPAL INCOME OPPORT. II	A	Muni. Ntl. Long	Very low	171.7	0.95	–2.1	4.7	–14.1	0.8	7.2	21.7	3 2 3	–2.8	–15.8	–14.1
MSDW MUNICIPAL INCOME OPPORT. III	A	Muni. Ntl. Long	Very low	100.3	1.01	–1.4	4.8	–11.2	–1.2	6.7	19.8	3 2 2	–4.8	–16.3	–17.5
MSDW QUALITY MUNICIPAL INCOME	B+	Muni. Ntl. Interm.	Very low	504.9	0.71	–2.5	4.9	–16.9	1.6	7.5	18.9	3 2 3	–1.9	–15.8	–10.7
MUNIVEST	D	Muni. Ntl. Long	High	561.4	0.84	–9.7	2.1	–17.8	2.1	7.3	20.3	3 2 4	1.3	–14.0	–11.5
MUNIYIELD	D	Muni. Ntl. Long	High	537.8	0.63	–11.7	1.7	–25.2	–0.4	8.0	23.0	2 2 4	5.8	–9.7	–7.3
MUNIYIELD INSURED	D	Muni. Ntl. Long	High	885.5	NA	–9.2	2.6	–22.8	2.2	7.4	22.4	3 2 4	3.3	–12.1	–10.3
MUNIYIELD QUALITY	C-	Muni. Ntl. Long	Average	430.1	NA	–8.7	3.0	–22.0	2.0	7.5	21.5	2 2 4	–2.3	–16.2	–13.6
NUVEEN INS. CALIF. SELECT TAX-FREE	A	Muni. Calif. Interm.	Very low	92.3	0.44	–0.2	4.7	–15.0	2.2	6.2	17.1	4 3 2	4.5	–11.6	–11.2
NUVEEN INS. MUNICIPAL OPPORTUNITY	C	Muni. Ntl. Interm.	Average	1197.5	0.77	–6.1	2.7	–22.0	–1.3	7.7	23.2	4 3 3	5.2	–15.3	–9.9
NUVEEN INS. N.Y. SELECT TAX-FREE INCOME	A	Muni N.Y. Interm.	Very low	56.7	0.49	0.7	5.0	–14.1	2.6	6.2	15.9	4 3 2	2.8	–14.2	–11.2
NUVEEN INS. PREMIUM I INCOME MUNI. 2	C-	Muni. Ntl. Long	Average	482.1	0.79	–7.5	3.4	–21.1	1.5	7.1	18.9	3 2 4	–1.7	–16.5	–13.9
NUVEEN INS. QUALITY MUNICIPAL	C-	Muni. Ntl. Interm.	Average	548.8	0.79	–7.3	2.4	–13.2	1.9	7.0	23.2	4 2 4	2.6	–12.7	–5.6
NUVEEN INVESTMENT QUALITY MUNICIPAL	C-	Muni. Ntl. Interm.	Average	521.8	0.78	–7.4	2.5	–22.4	–1.1	8.2	21.3	3 3 4	1.3	–17.3	–10.7
NUVEEN MUNICIPAL ADVANTAGE	C	Muni. Ntl. Interm.	Average	624.6	0.78	–6.8	2.4	–22.1	–1.0	8.3	20.9	4 3 4	6.4	–12.9	–9.9
NUVEEN MUNICIPAL INCOME	A	Muni. Ntl. Interm.	Very low	92.7	0.82	–0.1	4.6	–9.9	3.2	6.5	20.2	4 3 2	3.6	–12.1	–1.0
NUVEEN MUNICIPAL MARKET OPPORTUNITY	C	Muni. Ntl. Interm.	Low	665.7	0.77	–6.7	2.5	–20.7	0.1	8.2	22.3	4 3 4	5.9	–13.0	–9.6
NUVEEN MUNICIPAL VALUE	B+	Muni. Ntl. Long	Low	1894.0	0.65	–3.4	4.0	–15.2	2.0	6.5	20.4	3 2 3	–3.2	–16.0	–15.0
NUVEEN PERFORMANCE PLUS MUNICIPAL	C	Muni. Ntl. Interm.	Low	854.4	0.77	–6.5	2.6	–18.8	–1.0	7.7	21.5	4 2 4	2.8	–15.5	–11.6
NUVEEN PREMIUM INCOME MUNICIPAL	C-	Muni. Ntl. Long	Average	902.7	0.77	–9.2	2.3	–15.5	2.0	7.1	22.6	3 2 4	–1.1	–14.6	–10.9
NUVEEN PREMIUM INCOME MUNICIPAL 2	B	Muni. Ntl. Interm.	Low	617.8	0.77	–4.8	4.3	–12.7	4.3	6.8	19.7	3 2 3	4.5	–8.3	–6.7
NUVEEN PREMIUM INCOME MUNICIPAL 4	C	Muni. Ntl. Long	Average	569.1	0.79	–5.6	4.0	–12.0	4.7	6.3	19.0	2 2 3	0.2	–12.7	–9.5
NUVEEN QUALITY INCOME MUNICIPAL	B	Muni. Ntl. Interm.	Low	797.9	0.77	–4.3	3.4	–24.0	–0.5	8.4	21.3	3 3 3	7.3	–13.6	–9.7
NUVEEN SELECT MATURITIES MUNICIPAL	A	Muni. Ntl. Interm.	Very low	143.3	0.63	0.3	4.7	–14.3	1.8	6.4	12.9	4 3 2	0.2	–16.9	–12.3
NUVEEN SELECT QUALITY MUNICIPAL	B	Muni. Ntl. Interm.	Low	493.6	0.78	–5.3	3.4	–21.1	–0.4	7.9	21.3	3 3 3	3.0	–15.5	–7.6
NUVEEN SELECT TAX-FREE INCOME	A	Muni. Ntl. Interm.	Very low	248.4	0.36	0.9	5.0	–15.7	2.4	6.8	15.6	4 3 2	6.2	–10.7	–9.2
NUVEEN SELECT TAX-FREE INCOME 1 2	A	Muni. Ntl. Interm.	Very low	264.9	0.40	1.2	5.2	–15.9	1.6	6.7	15.6	4 3 2	4.0	–13.8	–12.4
NUVEEN SELECT TAX-FREE INCOME 3	A	Muni. Ntl. Interm.	Very low	188.9	0.49	0.5	5.3	–15.5	1.9	6.6	16.6	3 3 2	3.8	–13.4	–11.5
PILGRIM PRIME RATE	B+	Ultrashort	Low	1733.2	1.50	5.3	7.1	–6.5	1.9	9.8	5.5	4 1 2	6.2	–10.4	0.7
PUTNAM MANAGED MUNICIPAL INCOME	B	Muni. Ntl. Long	Low	445.4	1.22	–4.7	2.5	–25.1	–3.5	9.4	21.3	4 3 3	23.1	–5.3	10.9
PUTNAM MASTER INCOME	D	Multisector	High	443.5	1.00	1.9	3.1	–10.1	1.9	10.8	12.9	4 4 2	–0.7	–21.9	–20.2
PUTNAM MASTER INTERMEDIATE INCOME	C-	Multisector	Average	805.1	0.92	3.0	4.2	–19.3	0.9	11.2	7.8	4 3 2	0.9	–21.5	–20.5
TCW CONVERTIBLE SECURITIES	A	Convertibles	High	420.4	0.73	41.0	23.9	16.0	14.0	20.4	6.6	1 1 1	4.8	–15.7	–12.8
TCW/DW 2000 TERM TRUST	A	Short (Gen.)	Low	438.8	NA	3.3	8.6	6.2	11.8	5.5	13.9	2 1 2	–0.6	–5.3	–2.5
TCW/DW 2003 TERM TRUST	B+	Long (Gen.)	Average	860.3	0.74	–0.8	8.8	0.9	12.3	7.0	17.7	1 1 2	–5.3	–10.5	–8.3
TEMPLETON EMERGING MARKETS INCOME	D	Emg. Mkts. Bond	Very high	544.9	1.63	20.8	6.9	9.9	1.7	13.3	11.2	3 4 1	–3.7	–23.0	–21.5
TEMPLETON GLOBAL INCOME	D	International	High	874.3	0.76	–0.8	2.9	–9.9	1.1	10.2	6.5	4 2 3	–10.7	–21.7	–18.6
VAN KAMPEN CONVERTIBLE SECURITIES	A	Convertibles	Very high	80.8	0.83	49.0	24.0	37.2	19.1	3.2	8.6	1 2 1	–15.4	–23.6	–24.2
VAN KAMPEN MUNICIPAL	C-	Muni. Ntl. Long	Average	533.8	1.57	–8.9	2.9	–19.9	4.2	7.5	19.6	2 2 4	–0.8	–14.3	–8.5

NA=Not available.

DATA: MORNINGSTAR, INC., CHICAGO, IL.

EDICINE

A PROMISING PILL FOR MALE BIRTH CONTROL

) why are some drugmakers ignoring the research?

Susan Benoff's research on a potential male birth-control pill began with a puzzling case of infertility. A couple had come into the ertility clinic at North Shore Univer- y Hospital in Manhasset, N. Y., seek- g to conceive a child through in-vitro tilization. The couple's earlier at- npts to have a child, including artifi- l insemination with the man's sperm, l all failed. The man's sperm and the man's egg were normal by every asure, yet the test-tube fertilization o failed: In repeated attempts, man's sperm were unable to netrate the eggs. "There s zero percent fertiliza- n," says Benoff, the clin- research molecular bi- gist, who investigates clinic's failures. he couple was upset, d the physicians re upset."

Benoff began me- odically studying case, trying to d anything that ght explain the un- al outcome. She ex- ined the sperm and gs, she interviewed couple, and she ex- ined their medical ords. One oddity finally ight her eye: The man, o was in his late 30s, was ing a drug called nifedipine treatment of high blood pres- e. Sold under the brand names Pro- dia and Adalat, it is one of a class of gs called calcium-channel blockers, ich are among the most widely pre- ibed drugs for the treatment of heart ease and hypertension. The drugs act stopping the movement of calcium ough cell membranes, and Benoff ew that calcium was important in rm function. It was Benoff's only d, and she decided to pursue it.

She asked the man's cardiologist to itch him to another hypertension drug. When that was done, the couple was able to conceive a child. It took Benoff months of research to determine that the drug was responsible for the infertility. She realized immediately that it might be possible to develop calcium-channel blockers into a male birth-control pill, a long-sought goal of family-planning advocates. She has since continued the research without major funding, and she has now figured out how the drugs act on sperm. In a recent report, she concluded that calcium-channel blockers induce sperm to produce more cholesterol. That, in turn, hardens their membranes so that when they encounter an egg, they are unable to fuse with it.

Millions of Americans are taking drugs that can cause infertility—and don't know it

The National Institutes of Health thinks the work is so promising that it invited Benoff to visit in January to present her findings. After hearing the presentation, Robert Spirtas, chief of the contraception branch at the National Institute of Child Health & Human Development, said, "She's got an idea that may well be very important. We're going to work with her to try to move it forward."

EAGER CALLERS. Nearly a dozen different calcium-channel blockers, from a variety of manufacturers, are approved for use in the U.S. That translates into a $4 billion-a-year market, according to IMS Health Inc., a drug industry research firm in Plymouth Meeting, Pa. Despite Benoff's findings that the drugs have potential as contraceptives, the companies that make them have shown little interest in the work, she says.

When she first reported her findings in 1994, her phone was "ringing off the hook" with calls from men eager for a male pill, she says. Drug companies took a different view, she says. "I was approached by the companies because they were afraid of lawsuits." More than 4 million Americans, most of them men, are taking drugs that can cause infertility, she says—and they don't know it. Another problem is that drugmakers are afraid of losing the heart market to other medications that are equally effective. "The drug companies were scared,"

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Benoff says. "If patients were frig ened, they could go to their physici and say, 'I don't want to take this a more.'" Mary Sawyers, a spokeswom for Bayer Corp., which sells nifedip under the brand name Adalat, says: we saw it as being effective as a m contraceptive, then we would purs that. The market would be big, pot tially bigger" than the heart market.

In the wake of Benoff's first rep Pfizer Inc., the maker of the Procar brand of nifedipine, noted in its prod description that there had been a " port of reversible reduction of the abil of human sperm . . . to bind to and fertil an ovum . . . ." But it's just one sente in a 3,000-word description of the dru effects and side effects and easy to mi "We ourselves have gotten very few ports on this over the years," says A drew B. McCormick, a Pfizer spokesm

Most doctors, even infertility specialists, are unaware of the side effects

"It does not seem to be an issue with t majority of physicians or patients."

Bayer did not take note of the infe tility problem in its product descriptio Even if Adalat users or their docto did read all the fine print, they would find out about Benoff's researc Sawyers says most men who use cal um-channel blockers are older and ha already had their children. "I don't kno that [infertility] has ever been an i sue," she says. "Our lawyers don't kno of any lawsuits in that arena."

NO CLUE. The infertility problem e tends beyond calcium-channel blocke Benoff says there are as many as 1 drugs capable of causing infertility men or women. They include a variet of blood-pressure medications, canc chemotherapy agents, psychiatric drug antibiotics, and recreational drug Benoff says. "People mostly don't see to know about it," she says. "The fact that the general physician doesn't kno about this side effect."

Even some specialists are unawa of the infertility problems Benoff h found. For example, a recent article i the *New England Journal of Medicin* summarizing research on calcium-cha nel blockers failed to note that the me ication may cause infertility.

Part of the problem, Benoff says,

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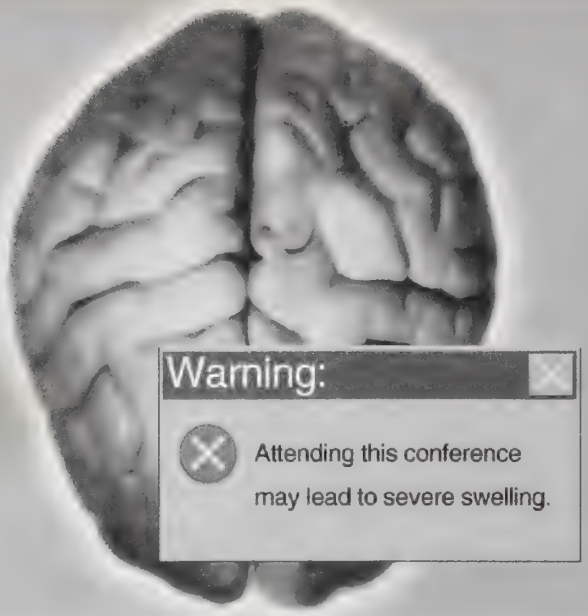

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that drug safety tests are usually n with female lab animals, to find evider that the drugs might cause birth defe Those tests sometimes pick up fem infertility. But tests with male anim are less common, meaning that proble with male infertility are often not fou

When Benoff first suspected in 19 that nifedipine might be adversely fecting sperm, she asked colleagues various clinics to look in their files any link between calcium-channel blo ers and infertility. They soon told h that they were finding similar cases male infertility in men with norm sperm. Benoff then tried to determi whether they had also found that the fect was reversible—which is exact what a male contraceptive ought to h "It was," she says. "When patients we taken off these medications, they n gained fertility potential....They we able to get their wives pregnant."

INSTITUTE'S INTEREST. Her first repo of those findings is what started h phone ringing. She told callers th more research was needed to devel the drugs into safe, effective contrace tives. But the drug companies that a proached her, she says, were not inte ested in supporting her research.

She reported her most recent fin ings last fall at the latest meeting the American Society for Reproducti Medicine in Toronto. The director of th National Institute of Child Health Human Development heard the prese tation, and that led to Benoff's invitatio in January to present her findings ther "We think there is a need for a dru like this," says the institute's Spirta "There are couples in which the woma can't take hormonal contraceptives an in which, at least in the surveys we'v seen, the male partner would be willin to take the contraception."

Spirtas says the institute will wor with Benoff to develop a grant propos and will likely give her funds to pursu the research. Some other male contra ceptives, based on testosterone and oth er hormones, may reach the marke sooner, but Benoff's nonhormonal ap proach could prove to be safer, he says because it doesn't have the many sid effects associated with hormone treat ments. With the institute's help, the re search could proceed much faster.

Benoff's hunch about the role of calc um-channel blockers in infertility—an her persistence in pursuing it—has pu her on the brink of what could be a ma jor advance in contraceptives. By solvin the problem of one unhappy couple, sh may improve the lives of many others.

By Paul Raeburn in New Yor

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ITED BY ELLEN LICKING

ALE'S BIGGEST CIENCE PROJECT

AME THE TOP SCIENCE ıd engineering schools, ıd Yale University robably won't come un- l after a second breath, lmits Yale President ichard C. Levin. That ıuld soon change. Yale ans to spend $500 mil- ɔn on a sweeping ex- ınsion of its science and ıgineering facilities.

Yale's plan calls for ve buildings to be con- ructed, enlarging the ıiversity's total "foot- rint" by about 25%, ıys Levin. "We haven't ıd an expansion any- ıing like this since the)60s." Three new build- gs will be used for ate-of-the-art research chemistry, biology, and ıvironmental science. he fourth will be devot- l to engineering, and o. 5 will house class- ɔoms for the School of orestry & Environmen- ıl Studies.

Triggering this flurry construction was a $24 illion gift from John C. alone, chairman of Lib- ty Media Corp., who ırned a 1963 engineer- g degree from Yale. hile Malone's donation earmarked for the en- neering school, Yale de- ded it needed to up- rade other departments well. "The sciences are interconnected today ıat it's hard to think ɔout one department ithout considering the hers," Levin explains. alone's gift is just a ɔwnpayment. A fund- ıising campaign will be unched to come up with ıe rest. Its success will termine how quickly ale can make good on s plans. *Otis Port*

BUT WILL THEY BRING A LITTLE KEG OF BRANDY?

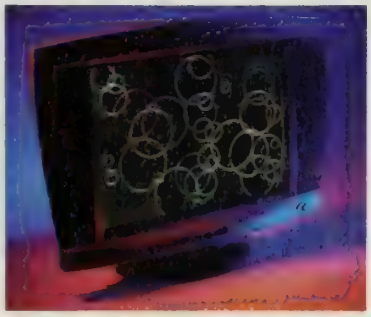
RESCUERS SEARCHING FOR AN avalanche victim have just hours to find the person before hypothermia, or even death, occurs. But help—initially in the form of swarming mini-robots—is on the way. Rush D. Robinett and his colleagues at the Energy Dept.'s Sandia National Laboratories have developed software that enables cockroach-size robots—with less than a quarter of the computing power of a desktop PC—to pinpoint a source of interest, say the location of a land mine or a lost skier.

Controlled by Robinett's search program, the tiny robots constantly measure the strength of the signal emanating from the sought-after source, such as a skier's radio beacon. The robots, built with wheels or legs, constantly communicate this information, plus their position, to the other robots in the swarm. With each new bit of information, the individuals in the group refine the direction of their search.

Simulations suggest that searchers using this "swarm" of 10 to 20 robots can locate avalanche victims at least four times as fast as conventional search methods. Robinett envisions a day when rescue workers will carry not only global positioning systems and radio equipment, but also handheld computers running his program. □

A FLAT TV WITH NO FAT PRICE TAG

ENGINEERS HAVE TESTED countless techniques for flattening bulky picture tubes into sleek, wall-hanging televisions. But liquid crystals, light-emitting diodes, miniature vacuum tubes, and gaslike plasma have all proved costly—or impossible—to work with at sizes greater than a 20-inch diagonal. A 42-in. flat-plasma display from Fujitsu Ltd., for example, still costs more than $5,000.



But Westaim Advanced Display Technologies Inc. of Toronto says it will soon be demonstrating bright flat-panel TVs that will cost half as much as plasma TVs and be less vulnerable to damage from knocks and shakes during shipping or installation. In the lab, Westaim has produced 17-in. prototypes.

Westaim's approach is a variation on an old technology known as electroluminescence. To build the screens, engineers stack up layers of electrodes, insulators, colored phosphors, and filters on a sturdy ceramic substrate. The result is a solid-state panel with no moving parts or temperamental gases. "People have been skeptical, but it does have real potential," says display analyst David Mentley at Stanford Resources Inc. *Neil Gross*

INNOVATIONS

■ Unrutted roads impervious to driving rain or deep freezes? It's not impossible, says University of Arkansas engineer Kevin Hall. His laboratory is trying to develop a simple test that would predict the reaction of different asphalt-paving mixtures to the environmental stresses of the roadway. Currently, builders decide what kind of surface to put down based on their own experience, but asphalt is not a one-size-fits-all product. Temperature, precipitation, the amount of traffic, and the slope of the road all affect how any given surface will perform over time. A test such as Hall's would provide builders with objective measurements to use when deciding which formulations do best at various temperatures and precipitation levels.

■ Researchers announced findings in the Jan. 15 *Lancet* that could someday lead to a treatment for bovine spongiform encephalopathy, more commonly known as mad cow disease. A characteristic feature of the disease is that a specific brain protein becomes misfolded. Somehow, in ways not completely understood, this change propagates among other neighboring proteins and reduces the brain to a spongy mush. Now, Claudio Soto and a team of researchers at the Serono Pharmaceutical Research Institute in Geneva, Switzerland, have designed a small molecule that in cell cultures can disrupt the misfolded protein and force it to adopt a more normal conformation. This molecule also appears to make the pathogenic protein less infectious. When mice were infected with both the pathogen and the molecule, it took 90% longer for the animals to develop the disease than it did when they were infected with the pathogen alone.

PHARMACEUTICALS

A CRACKDOWN ON E-DRUGGISTS

Online pill-pushers are in U.S. regulators' sights

On Nov. 22, a 15-year-old boy in Michigan got on the Internet and visited the Web site of ConfiMed, the self-described "original online source" for Viagra and other medication. He filled out an order for Xenical, a weight-loss drug with side effects including bloating, cramps, and diarrhea. The next day, he got a puzzled e-mail from ConfiMed: "At 5 foot 9, 130 pounds, there would be a question as to why you might need Xenical," it wondered. "Please send further explanation."

Oops, the teenager replied, his weight was really 180. Five days later, on Nov. 29, the pills arrived in the mail, complete with a prescription written by ConfiMed's founder, Seattle's Dr. Howard J. Levine. Unfortunately for Levine, the purchase was a sting set up by the Michigan attorney general's office. In December, the attorney general char ConfiMed and nine other online com nies with selling prescription dr without adequate medical consulta and proper licenses. Levine de breaking any laws.

The Michigan crackdown is just piece of a broad new legal attack Internet drug-sellers. There have ways been doctors and merchants dispensed prescription drugs out backdoor. But now the Internet is giv them global reach. Law enforcers e mate that there are now more than online drug peddlers, tapping into more than $110 billion spent on re prescriptions in the U. S. each year.

A few sites, such as PlanetRx.c and HealthCentral.com, sell drugs o to those with a valid prescription. others are freely dispensing everythi from Viagra and hair-loss prevent Propecia to steroids and amphetamir with only a perfunctory questionnai Indeed, regulators point to the case o 52-year-old Illinois man who was able buy Viagra online, despite having ch pains and a family history of heart d ease, and who died during sex. Onli drug peddling "poses enormous hea and safety issues," says Michigan torney General Jennifer M. Granhol "It's the wild, wild West out there."

Now, the sheriffs are arriving— force (table). Last year, Illinois, Kans and Missouri also took action again Web drug merchants, and the Nation Association of Attorneys General is n establishing a working group to plot wider assault involving dozens of stat Meanwhile, the Clinton Administrati in December announced a new plan give the FDA $10 million per year use in tackling online drug peddlers, well as new authority to impose fines

ELUSIVE. But even though law enforce are on the attack, it's not clear they ever completely succeed in taming t cyberfrontier. As has already been di covered with online gambling and s curities fraud, the Web is much hard to police than the brick-and-mort world. Many of the worst drug site for example, operate outside of U. control in loosely regulated foreig havens such as Thailand and t Caribbean. "The foreign sites are... ve active, very illegal, and very dange ous," says Carmen Catizone, executiv director of the National Association Boards of Pharmacy (NABP).

Because their companies are built electrons, the cyber drug merchants a also proving to be very evasive—eve when they're based in the U. S. "One

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the most difficult challenges has been finding the companies and people responsible," explains Kansas Attorney General Carla J. Stovall. Her staff has had to pierce through a variety of evasive tactics, including multiple-shell corporations and addresses that turned out to be mail drops. In Texas, meanwhile, investigators have found that the sites pay close attention to who visits—and frequently manage to stay one step ahead of the law. "When we go in and look at a site, it logs us in," says Cynthia T. Culmo, director of the Division of Drugs & Medical Devices at the Texas Health Dept. "The next time we try to access it, it's shut down."

AD NAUSEAM. In spite of the difficulties, enforcers say the fight has only just begun. Government gumshoes estimate that sales at the online prescribers are in the tens of millions of dollars and growing. And some of the sites are all but daring authorities to shut them down. The opening Web page for KwikMed, for example, brazenly proclaims: "No prescription? No problem...." KwikMed lawyer James W. Hill says that is just the "grabber"—and that the site goes on to explain "ad nauseam" how buyers must fill out an online questionnaire, evaluated by a doctor, to get Viagra, Propecia, and other drugs. But regulators say such online consultations are woefully inadequate. Indeed, the questionnaires on many sites—including KwikMed's—already have the correct answers filled in.

The FDA is currently investigating 100 sites and plans up to 50 actions later this year. But recognizing the limitations of traditional law enforcement, the agency also plans to attack the problem in other ways. For example, it supports a certification program developed by the NABP that gives a seal of approval to totally legit sites: Four have won approval so far, with 12 more expected soon—and 60 applications are pending. "The certification makes consumers realize there are good and bad guys," says FDA policy chief William K. Hubbard.

Of course, many online drug merchants think the crackdown is unnecessary and unfair. The typical drugs sold by the sites—Viagra and Xenical, among others—are so "benign" that just having "consultations" with cyberdoctors is more than adequate to protect the public's health, argues ConfiMed's Levine. "Unless someone grossly lies, the worst that could happen is that the drug won't help them very much," he says.

Online defenders note that a man with a heart condition can get Viagra just as easily by telling a lie to a doctor in person. So why shut down Web sites in a futile attempt to protect people from themselves? Moreover, the Web shields people's privacy—a big concern for many Viagra users, who are embarrassed by the necessity of visiting local doctors and drugstores. "If the wasn't a need for this [type of site], wouldn't exist," says William A. Sta knecht, owner of The Pill Box Pha macy, a Houston chain whose onli site has been fined by Missouri. (St lknecht insists that he's trying to co ply with the state's laws.)

Nonetheless, the NABP, state att neys general, and the FDA have dra a firm line: Prescriptions must co from face-to-face visits with a doctor, from a consultation with a patien regular doctor. "Prescription drugs a dangerous drugs," explains Culmo. O line pharmacies "are going outside t lines of safety that were put in place she says.

That may be the case. But the sit are certainly not lacking for custome And unless that changes, this proble will continue to plague the regulators

By John Carey in Washingto

DRUGMAKERS: COULD A MOUSE CLICK DRAG THEM INTO COURT?

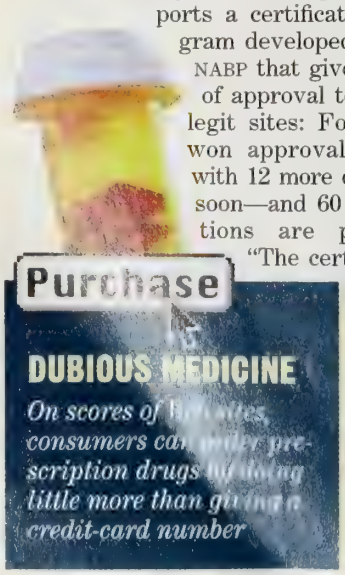
How's this for a drug company's legal nightmare? A man buys Viagra from an illicit online drug peddler, then dies during sex. An autopsy discovers that he had a heart condition—and should never have been allowed to use the medication. Lawyers scent blood. Knowing it's not worth suing the tiny e-drug merchant, they go after deep-pocketed manufacturer Pfizer Inc. for not keeping the drug from being sold through dubious channels.

PROWLING. Is this hypothetical scenario far-fetched? Not necessarily. "Industry is concerned that, if companies had knowledge that these drugs were being misused...they could be deemed negligent," explains Washington food and drug lawyer Marc J. Scheineson.

That's why companies aren't sitting idly by. Pfizer declined to comment on its potential liability for drugs illegally sold online. But the company has been prowling the Wel to find sites that offer Viagra. "Onc we learned of them, we contacted the medicine or pharmacy board in those states," says spokesman Andrew B. McCormick. That's a smart move. Given the liability threat, "dil gent companies should be monitorin the Internet and at least appearing to do something," says drug industry consultant Steven M. Weisman.

Regulators wish that the drug industry would cut off distributors that sell to shady sites. Cynthia T. Culmo, of the Texas Health Dept., believes one reason they don't do so is the fear of losing extra revenue. As this issue continues to generate controver sy, the drug industry is likely to feel at least some of the growing heat.

By John Care

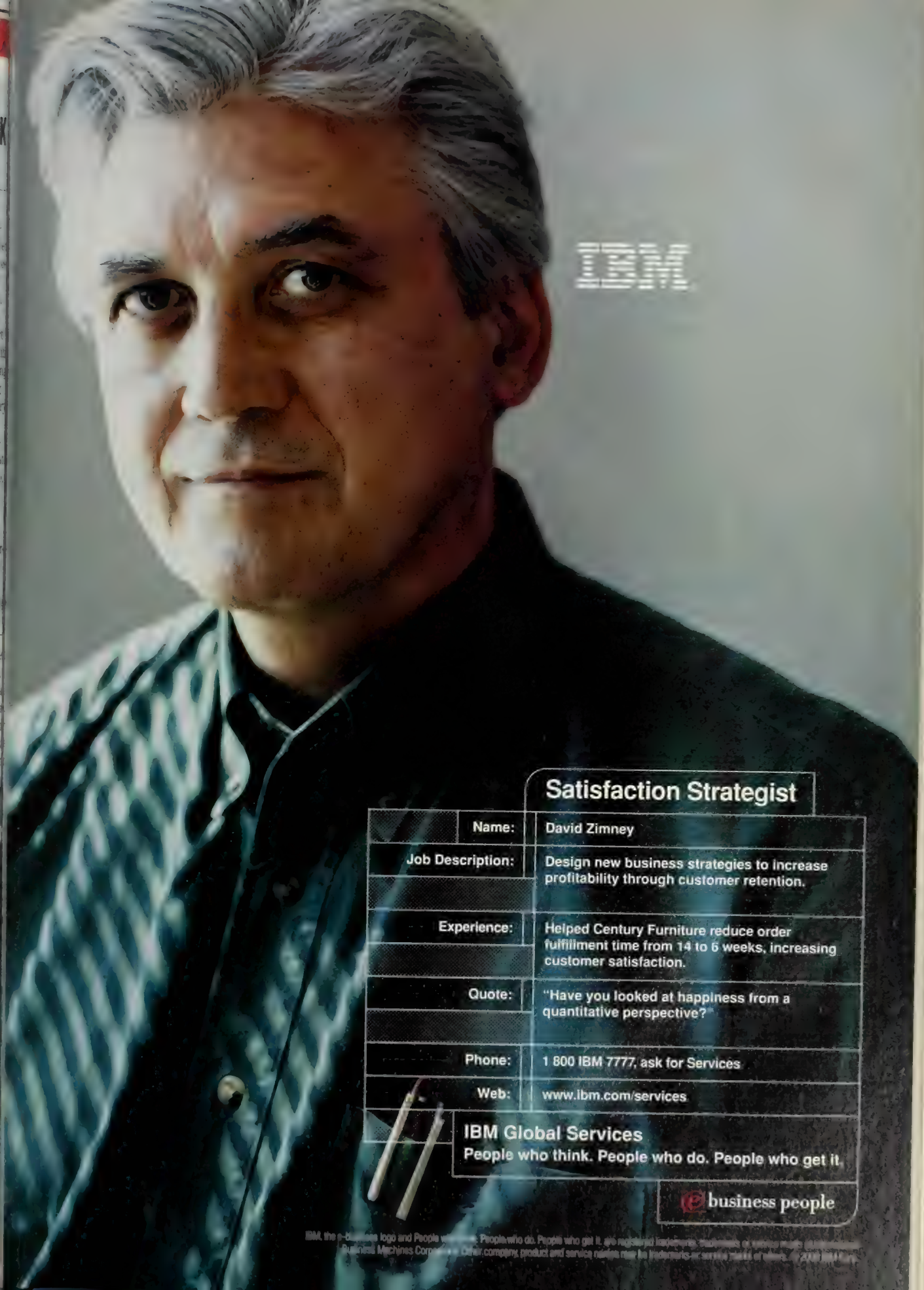


WASHINGTON The FDA is investigating 100 sites and planning an assault later this year. Meanwhile, the White House is pushing for legislation authorizing the agency to levy fines of up to $500,000 against rogue operations.

STATES Attorneys general in Illinois, Kansas, and Missouri have targeted a handful of online pharmacies. But while the enforcers have won some small victories, prosecuting the sites has been harder than expected.

MEDICAL AUTHORITIES The National Association of Boards of Pharmacy has developed a certification program to bless sites that require a valid prescription. Four seals of approval have recently been issued.

DATA: BUSINESS WEEK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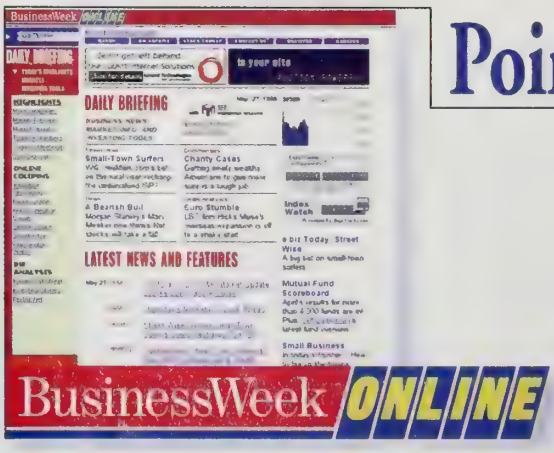

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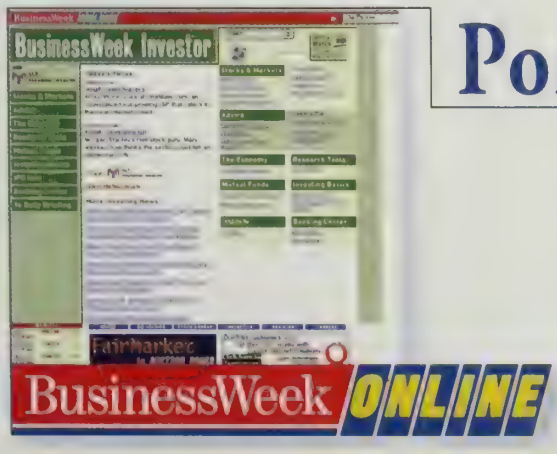

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MOM COLLEEN (LEFT) WITH PHILLIP, ADRIENNE, GAVIN, AND JOE AT A KINGS HOME GAME

DYNASTIES

PRO BASKETBALL'S FAMILY ACT

The Maloofs liked the Sacramento Kings so much they bought the team–and its arena

It began as a roar. But before long, the filled-to-capacity Arco Arena began to rock and shake. Down by 11 points in the fourth quarter, the hometown Sacramento Kings were mid-bounce through a rally. And no one was cheering louder than 44-year-old team owner Gavin Maloof. His suit jacket off and his fingers to his mouth, Maloof let out a sharp whistle. Meanwhile, as the opposing coach argued with the referee, Colleen, Maloof's sixtysomething mother and matriarch of the family empire, yelled: "Oh, sit down."

Basketball is taking Sacramento by storm these days, and so are the Maloofs, a tightly knit family that until recently was largely unknown outside its native New Mexico. They are by far that state's wealthiest family. With a lucrative New Mexico beer distributorship, a 16% stake in Utah's largest bank, and a casino in Las Vegas, the Maloofs' holdings are worth an estimated $1 billion.

Now, the Kings are really putting the Maloofs on the map. In early 1999, the family paid about $260 million to Los Angeles real estate developer James F. Thomas for a controlling interest in the team as well as the Arco Arena, a women's professional basketball team, and an indoor soccer team. Better still, the once-sorry Kings are red-hot. They have won 25 of their first 38 games this year, putting them third behind the Lo Angeles Lakers and the Portland Trai blazers in the ultra-competitive Pacif Division. And while the family says has plenty to do overseeing what it a ready owns, it's a safe bet the Maloo will soon be looking to add to their bud ding sports holdings. "There is some thing unique about owning a sport team," says 45-year-old Joseph G. Maloo Colleen's oldest and the president of th family holding company, Maloof Cos.

Purchasing the Kings has also serve as a kind of homage to George Maloo Colleen's late husband and the father o their five children. He died of a heart at tack in 1980, a year after buying the Na

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An $8 million facility will replace training at the local Y

ıal Basketball Assn.'s Houston Rock- . Colleen's crash course in managing ·an somewhat reluctantly the moment husband died. And, with her chil- n still learning the ropes of the fami- business, one of her first moves was ing off the Rockets to concentrate on family's other holdings. Now, Colleen ieves it was a mistake. "I regretted it ıost immediately," she says. "I didn't ·ch another basket- l game for 10 ırs, it hurt so ch."

Still, it became ır that Colleen had ·nack for running ngs. She has been driving force be- d the family busi- s ever since. Today, is Colleen who kes the big deci- ns, flying into Las ·as or Sacramento meetings with her s.

UGH TEAM. Three ırs ago, the Maloofs ·d to get back into ofessional sports, at first weren't ling to pay the ask- price. The Kings re the fourth NBA m the Maloofs ked into buying. ıey kept calling me, ·ing what was ıilable," recalls NBA mmissioner David Stern, a longtime nily friend. "They ked a lot of tires."

Sports and the loofs have always ne together. The ır boys all played tball in high school, h both Joe and Gavin winning col- e scholarships. Daughter Adrienne s among the state's top-ranked tennis yers. When they weren't playing rts, the children pitched in at the nily business. The boys helped deliver es of beer, while Adrienne worked front desk at a family-owned hotel in ouquerque.

Toughing it out and self-reliance were ays stressed within the family, recalls . He remembers getting beat up at age of 10 by a local bully. Instead of solace, his mother gave him a stern lecture. "She told me to go out and find him and beat him up," says Joe. "Yeah," adds Gavin, "and I went with him, and he beat us both up."

These days, the family is just as close. After a legal skirmish for control of the beer distributorship with a pair of aunts that lasted 10 years, Colleen acts as the family's "chairwoman." Her greatest strength has been holding together the empire her husband built and hiring smart people to handle the details of running it. Joe oversees the management of the beer company. The Sacramento Kings are run equally by Joe and Gavin, both of whom bought homes in the same gated Sacramento community. A third brother, George, is in charge of the Fiesta, a downscale Las Vegas casino that caters to locals.

Group decisions are made over meals—or at least via conference calls. "It's a family that eats a lot," says Phillip J. Maloof, 32, the youngest brother and a New Mexico state senator. Few decisions are made without everyone's input, says George, who is planning a $250 million Las Vegas casino that is expected to break ground in June. "I make a presentation and then take notes as every member of the family makes their comments."

That's the way it has always been with the Maloof clan. The family got its start in 1892, when grandfather Joe immigrated from Lebanon. A train trip from New York landed him in the boom town of Las Vegas, N. M., where he opened a general store. In 1946, his eldest son George and two other sons won the rights to the Coors beer distributorship that eventually fueled the family fortune. By the time George died, the Maloofs' businesses included a trucking company, an Albuquerque Ramada Inn, the Houston Rockets basketball franchise, and a majority stake in First National Bank, the state's largest bank. After a 1993 merger, the family now owns a 16% stake in Utah-based First Security Corp., valued at $320 million.

Now, the next generation is trying to make its mark in the high-stakes world of big-league sports. The problem is that the Sacramento Kings are still very much a work in progress. Like most professional franchises, the team loses money, even with television revenues. The family maintains, however, that the overall sports operation is profitable thanks to the 200-odd annual events that Arco Arena books, including circuses, trade shows, and other nonsports events. And with 22 games this year on national television, the Kings' young stars are a hot commodity that the NBA has been eager to promote.

OPEN WALLETS. Still, the Maloofs have plenty to learn about life in the big leagues. The family was fined $25,000 last year by the NBA after it footed the bill for an all-expenses-paid junket to Las Vegas for Kings team members. The league ruled that the expense constituted payments beyond the mandated salary cap.

Indeed, the Maloofs seem intent on keeping the Kings players happy. They are shelling out $8 million to build a plush training facility, a real step up for a team that currently practices at a local YMCA. And it will no doubt dole out millions more in the next few years, when superstars Chris Weber and Jason Williams will be seeking new multimillion-dollar contracts. "They're putting money out for us, and we'd like to win for them," says Williams.

The Maloofs are counting on it. As is often the case with home games, most of the clan was in Sacramento in mid-January when the team took on the San Antonio Spurs, last year's NBA champs. Colleen flew in from New Mexico to sit courtside with Gavin and Joe. So did Adrienne, who designed the Kings cheerleaders' shimmering costumes. And there was plenty to cheer about when the hometown team beat the champs in a squeaker. Now all the Maloof family has to do is turn their fascination with sports and the Sacramento Kings into a money-making proposition.

By Ronald Grover in Sacramento

THE MALOOF FAMILY EMPIRE

BEVERAGES Joe G. Maloof & Co. The foundation of the family business, it distributes mostly Coors beer. (Value: $350 million)

SPORTS 53% stake in the Sacramento Kings basketball team, as well as ownership of that city's women's professional basketball team and a professional soccer team. Also owns Sacramento's Arco Arena, a 17,000-seat indoor arena. (Value: $260 million)

CASINOS Central Palace Casino in Central City, Colo.; Fiesta Casino Hotel in Las Vegas; and a planned casino to be built just off the strip. (Value: $150 million)

BANKING 16% stake in Utah-based First Security Corp. (Value: $320 million)

TOTAL VALUE OF FAMILY HOLDINGS $1.1 billion

DATA: SEC, BW

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LAYBOURNE

Oxygen's CEO promises to deliver a "very proud, very rowdy" attitude–but it may turn off some viewers

NEW VENTURES

OXYGEN: INFLATED EXPECTATIONS?

Maybe women don't need more women's programming

The setting: A pre-Christmas party at Oxygen Media Inc.'s Sunset Boulevard production studio. The mission: to woo cable-system operators to carry Oxygen's startup cable-TV network for women. The music: Whitney Houston's *I'm Every Woman*, pumped through loudspeakers. The pitch: "Men watch TV with one hand down their pants and the other on the [TV remote] control," TV producer and Oxygen co-founder Caryn Mandabach tells the group. "Women watch TV with a Krispy Kreme donut in one hand and a martini in the other—and they don't need a remote because they're just watching Oxygen!"

Clearly, this was no time for subtlety. After all, to get gen airborne, clo $450 million had raised and 560 p hired. Yet for al hype, resources, talent behind it- cluding Nickelo founder Geral Laybourne, TV maker Carsey-W er-Mandabach and media icon O Winfrey—Oxyge about to launch wi whimper: Only 10 million of the nat nearly 100 million households with ble-TV will carry the channel whe makes its debut on Feb. 2, and its site, in operation since last year, i among the top Net destinations women.

Of course, low numbers out of the aren't unusual for startups. And at rate Oxygen and Laybourne, its chair and CEO, are getting attention, its hits could soar in no time. To exp Oxygen's cable presence, Laybourne putting her backers' money where mouth is—spending $100 million to p duce all-original programming fron nightly talk show hosted by Cand Bergen and a series called *Oprah G Online* to cartoons.

AMBITIOUS. On its face, New York-ba Oxygen is as ambitious as any new r dia launch to come along in a while. also based on a business concept fraug with questions. How will it succeed line against established Web rivals su as Hearst-led Women.com Networks a iVillage Inc.? Is it going after too bro an audience, targeting everyone fr teens to their moms? How can it ge erate basic cable fees when most oth new cable networks have had to p operators to carry them? And the bi gie: Is the gender that makes up 52% the population really, as its founde claim, an "underserved" niche?

Laybourne likes to use figures that like this: Women control 85% of all pe

WOMEN USE THE WEB DIFFERENTLY THAN MEN...

ONLINE ACTIVITIES	MEN	WOMEN
PURCHASE ONLINE	50%	40%
READ DAILY NEWSPAPERS AND MAGAZINES	36	30
READ PRODUCT OR ENTERTAINMENT REVIEWS	25	18
VISIT ADULT ENTERTAINMENT SITES	22	6
PLAY ONLINE GAMES	19	23
VISIT FAMILY SITES	13	18

DATA: FORRESTER RESEARCH

...BUT THEY HAVE THE SAME FAVORITE SITES

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2	MSN	AOL
3	AOL	MSN
4	Geocities	Geocities
5	Netscape	Netscape
6	Microsoft	Go
7	Go	Microsoft
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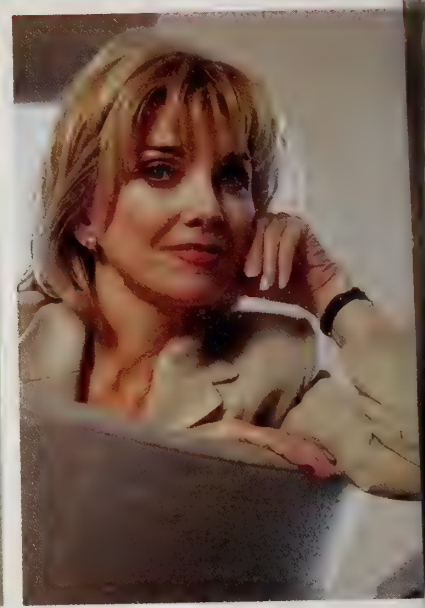
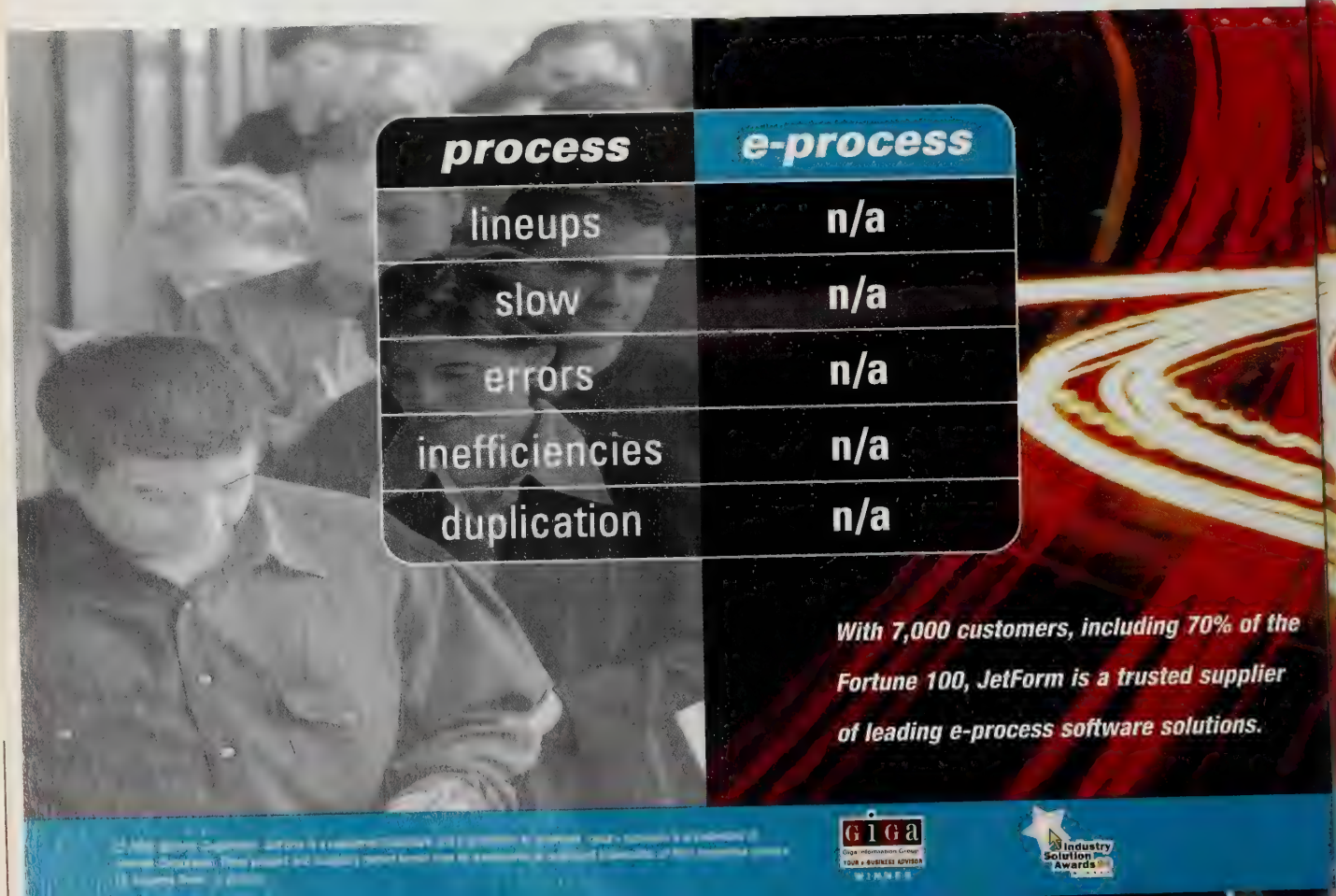
sonal and household goods spending. Ergo, the vast majority of the $186 billion a year spent on advertising should be targeted exclusively at them. This market, she believes, dwarfs the children's one she brilliantly tapped when founding Nickelodeon. Before Nick, kids' programming was limited to Saturday mornings, after-school shows, and dollops of Disney.



Trouble is, there's a whole lot more media serving women—for better or for worse. Newsstands are spilling over with women's magazines. Much of network TV is skewed toward women (*Ally McBeal*, *Judging Amy*), not to mention their daytime lineups. Then there's Lifetime Television, the women's cable channel carried in 75 million homes. Lifetime's new CEO Carole Black has been beefing up its original programming and planning a revamp of its Web site. "I would never say that women are underserved," says Ellen W. Oppenheim, senior vice-president and media director at ad firm Foote, Cone & Belding in New York.

No doubt, Lifetime could use a little competition. It has been criticized by some for its light fare and "women in peril" programming. But other would-be rivals haven't been as bold as Oxygen. A women's channel, tied to content culled from Time Inc. and Conde Nast Publica tions Inc., was announced and aborte by cable channel giant Turner Broad casting Systems Inc. last year. Insider there cited the high cost of doing al original programming for pulling the plug

Still, many believe Oxygen has stayin power—especially if it can capture strong following on the Net. Only 29% o



GOLDEN GIRLS

Laybourne's rivals in women's media include CEOs Candice Carpenter of iVillage.com, Carole Black of Lifetime Television, and Marlene McDaniel of Women.com

.S. women were on the Web in 1999, ccording to Forrester Research Inc., ut close to 50% are expected to be surf- g by 2003. Women also make the ma- rity of household spending decisions, om health care to buying computers.

The challenge Laybourne—and her p online rivals Candice Carpenter at illage.com and Marlene McDaniel of Women.com—face is that it's not clear that women want "women's" programming on the Web. "Just because you label yourself a women's Web site doesn't mean you'll attract women," says Forrester Research analyst Ekaterina O. Walsh. And Oxygen runs the risk of turning some women off with a brash, in-your-face attitude that Laybourne calls "very proud, very rowdy."

Even in a crowded market, there's always room for excellent programming. Oxygen's success will depend on whether it builds a loyal audience and not whether it's geared toward women. Just look at HBO. Although it is ostensibly a pay-TV movie channel, original programs such as *The Sopranos* and *Sex and the City* are what's hooking in new viewers. Nothing helps a new cable channel get picked up better than viewers clamoring for a hot show.

Right now, Laybourne faces an uphill battle convincing cable operators, particularly in New York and parts of Los Angeles, to carry the channel on their basic service, with Oxygen drawing a monthly fee. She may benefit from the planned merger of America Online Inc. and Time Warner Inc., because AOL is one of Oxygen's backers. So far, Time Warner hasn't agreed to carry Oxygen on its cable systems. To break even by 2004, Laybourne needs 50 million cable subscribers. Even with all her experience, gusto, and connections, it could be a while before Oxygen can breathe easy.

By Richard Siklos in New York, with bureau reports

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Rushing to Play the Net Without a Safety Net

Internet-only funds promise big returns–and bigger risks

BY SUSAN SCHERREIK

Investors eager to profit from the dot.com craze but wary of buying individual stocks are flocking to Internet mutual funds. Since mid-December, they have poured $1.3 billion into this small but sizzling fund category. No wonder: Internet funds delivered stratospheric returns in 1999. The best performer of the bunch, Monument Internet Fund, surged 273% last year, followed by Internet Fund, which was up 216%.

With investor interest sizzling, asset-management companies are falling all over one another to get a piece of the action. A year ago, just four stock funds specialized in the Internet. At last count, some 30 were up and running, with the bulk of them hitting the market since August. Goldman Sachs launched an Internet offering in October, and RS Investment Management and Strong Capital Management followed suit in December and January. Merrill Lynch plans an offering in mid-March, and several other Web funds are expected in the next few months. "Everyone is jumping on the bandwagon," says Reuben Brewer, manager of mutual-fund research at Value Line.

Mutual funds

In bringing out the new funds, managers are hoping to replicate the success of Munder NetNet, the largest Internet fund, whose assets reached $8 billion recently, up from $363 million at the start of 1999. Munder NetNet rose 176% in 1999 and boasts an annualized three-year return of 92%. In all, Internet fund assets have rocketed to $10.7 billion from $370 million a year ago (chart).

Despite their popularity, Internet funds are short on two key qualities: experienced management and diversified stock mix. Many of newest funds are sponsored by small, unte investment firms. Pure Play Internet, for stance, is one of four funds recently launch by the fledgling cyberfund family StockJu gle (BW—Jan. 31, 2000). Jacob Internet F which made its debut on Dec. 13, is the ation of Ryan Jacob, who managed the In net Fund until June, when he went off on own. Meanwhile, Steve Harmon, a well-kn online analyst of Internet stocks, plans to kick two Internet funds in the spring even though has never managed mutual funds (page 1 "You have to worry about whether the sma funds will stick around if Internet stocks go a protracted downturn," says Christop Traulsen, who follows funds for Morningstar.

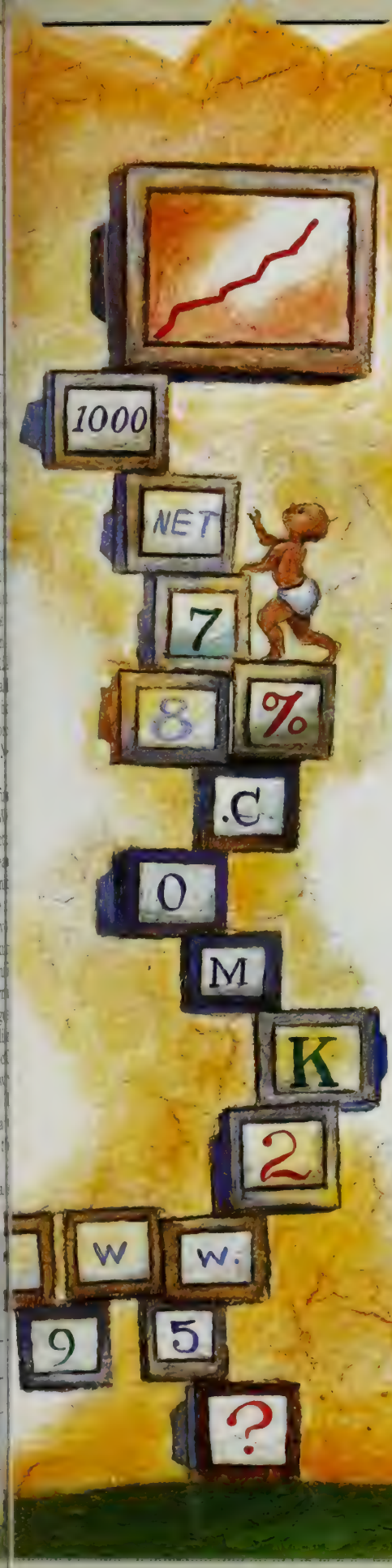
Even some established f outfits that are starting funds lack experience in this specialized sec Ron Baron, the respected manager who he Baron Funds, is launching Baron iOpportun Fund on Feb. 29, though he has never before cused on tech stocks. Baron insists, howe that the new fund plays to his forte: pick successful growth issues. "All of the compan we invest in now we think have viable Inter strategies," he says, noting that the firm's larg holding is Charles Schwab, a leader in onl trading. "We are going to be in dot.com sto but also bricks-and-mortar companies that benefit from the Internet." iOpportunity will run by Mitch Rubin and Matt Ervin, who ha helped Baron manage Baron Growth Fund the past year.

The narrow focus of Internet funds can ma them extremely volatile, and "there will

Promising New Internet Funds

NAME	START DATE	MANAGER	THREE TOP HOLDINGS
e-COMMERCE FUND	Sept. 30, 1999	Kevin Landis	OnDisplay, IBM, VeriSign
ENTERPRISE INTERNET FUND	July 1, 1999	David Alger	Yahoo!, Exodus Comm., Vignette
GOLDMAN SACHS INTERNET TOLLKEEPER FUND	Oct. 1, 1999	Robert Collins	VeriSign, Liberty Media, Time Warner
RS INTERNET AGE FUND	Dec. 1, 1999	Jim Callinan	VeriSign, VerticalNet, Yahoo!

DATA: MORNINGSTAR, FUND COMPANIES



nowhere to hide if the bubble bursts," cautions Morningstar's Traulsen. Unlike broader technology funds, many Internet offerings must invest at least 65% of their portfolios in Web stocks, preventing them from taking refuge in other areas when Net plays stumble. When tech stocks went through a correction in May, the average technology fund lost 1.2%—but Monument Internet Fund dropped 17.9%.

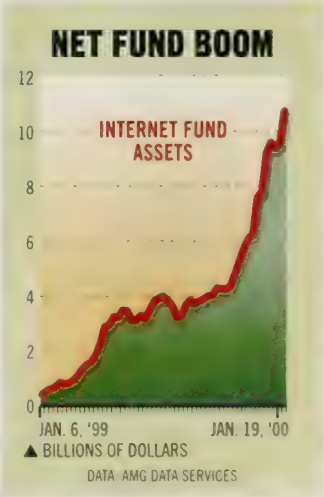
RISKIER. Some of the newer funds are more tightly focused on Internet subsectors, which adds to their risk. Consider four offerings launched in January

Most investors should probably select a broader tech or telecom fund that also invests heavily in the Internet and has a proven track record

by Kinetics Asset Management, which runs the Internet Fund. Its Internet New Paradigm Fund focuses on traditional companies, such as CBS, that are revamping to take advantage of the Net. The Internet Infrastructure Fund buys such companies as Qwest Communications International. The Internet Emerging Growth Fund focuses on Internet startups, such as Xpedior, and Internet Global Growth Fund purchases the stocks of Internet companies in foreign markets, such as United GlobalCom.

Most investors seeking to heighten their involvement in Net stocks should probably select a broader technology or telecommunications fund that invests heavily in the Internet and has a proven track record, such as Dresdner RCM Global Technology (page 132), which has a three-year annualized return of 80%, or Invesco Telecommunications, with a three-year annualized return of 65%.

But if you're set on adding an Internet fund to your portfolio, Morningstar's Traulsen suggests sticking to offerings run by veteran technology managers. RS Internet Age Fund, for example, is run by Jim Callinan, who also oversees the RS Emerging Growth fund, and whom Morningstar recently named the best domestic stock fund manager of the year. Firsthand Funds' e-Commerce Fund is managed by Kevin Landis, whose Technology Value Fund boasts the best five-year performance of any mutual fund. With all the brash young cowboys getting into the Net-fund biz, you might be better off with a fund that has someone more seasoned in the saddle. ☐



FROM WEB WHIZ TO FUND RUNNER

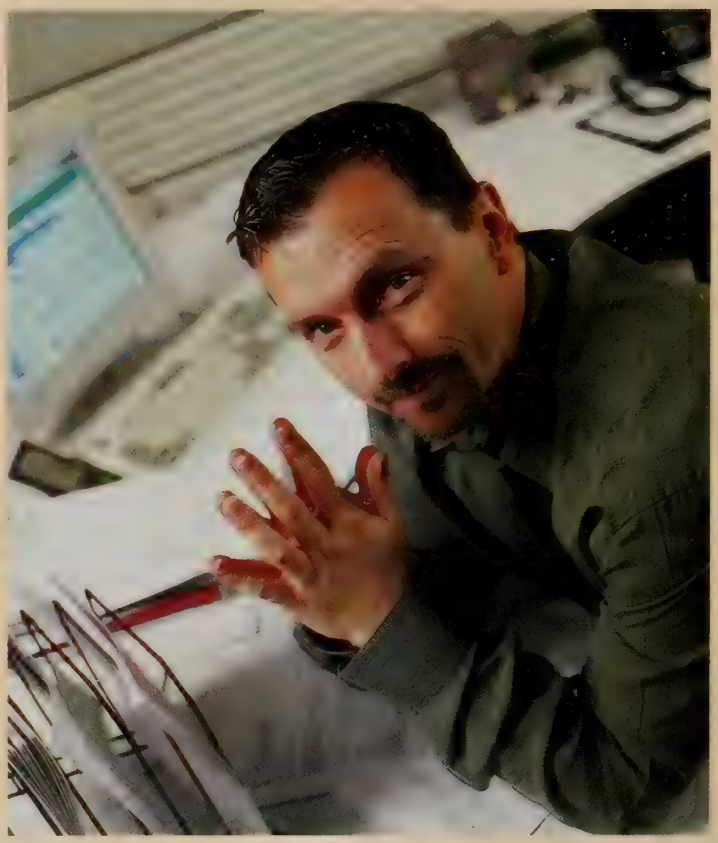
Steve Harmon bills himself as the first Internet stock analyst. In 1994, he started covering the fledgling Web industry for Paul Kagan Associates and later for Jupiter Communications. He subsequently developed a following among online investors by predicting, on the eve of its 1996 initial public offering, that Yahoo! would become a major Internet force. He also was an early fan of such hot Net stocks as CMGI and eBay. In August, Harmon, 35, started his own venture-capital and investment firm in San Francisco, e-harmon.com, with backing from such Silicon Valley heavyweights as Netscape Communications co-founder Marc Andreessen. Personal Finance Editor Susan Scherreik spoke with Harmon about his two new funds, which he plans to launch this spring: the e-harmon Net 30 Index Fund and the e-harmon Internet Fund.

Q: *You devised the index for your Net index fund. What is it based on?*
A: There are roughly 300 public Internet companies. The e-harmon Net 30 index will track the top 10% of these companies based on sales. The index will be rebalanced quarterly.

Q: *Why sales?*
A: Sales are the most important measure of an Internet company. If there is no revenue, there is no company. The problem with ranking Internet companies by other valuations, like market capitalization, is these stocks often have thin floats and too many investors piling in. So Web companies with the largest market caps can have little or no revenue but be the investing flavor of the week.

Q: *What sort of stocks will you buy for your other fund?*
A: Our goal is to invest in market leaders that will be around in three to five years, like Yahoo!, eBay, and Commerce One.

Day-trading isn't what we're about—that has nothing to do with uncovering value or understanding the best business models on the Internet.



INTERNET STOCK ANALYST-TURNED-FUND MANAGER HARMON

Q: *What do you look for in a Net company?*
A: The company must meet a real need—like offering free e-mail—and grow rapidly because customers will tell their family and friends about it. You can't create a successful Web company simply by making a big branding and marketing push. I also want to see sales growing, at a minimum, in double digits and preferably in triple or even quadruple digits.

Q: *Any other qualities you deem important?*
A: I look at how big a universe a Web company can tap into. Auctions and e-mail, for instance, are massive opportunities. But if it's paperclip.com, the market segment isn't large enough to support a couple of companies. I also want to know how many other companies are doing the same thing. First mover advantage is important. Lastly, I want to see management experience, though of course there was no seasoned management in the early days of the Internet.

Q: *Any Internet sectors you would avoid?*
A: Right now, e-retailers. Competition is high, margins are low, and brand-building is expensive.

> "Our goal is to invest in market leaders that will be around in three to five years.... Day-trading isn't what we're about–that has nothing to do with uncovering value"

Q: *Isn't it late in the game to launch Internet funds?*
A: We are at the start of a business-to-business e-commerce revolution that will unfold over the next 10 to 15 years. The process of businesses buying from and selling to each other will be totally automated. The wireless Net will also be huge. Computers at work and at home will be integrated. There's a lot of innovation to come.

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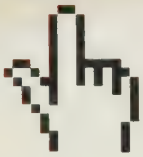

COMPAQ NonStop

Greenspan for Greenhorns

How to decode the moves of the Fed and its chairman

BY KATHLEEN MADIGAN

This is one of an occasional series explaining how major economic events affect the stock and bond markets

Federal Reserve Chairman Alan Greenspan has often been called the second most powerful man in the U. S., and it's not surprising that investors hang on his every word like lovesick teenagers. After all, the Fed has the tools and legal mandate to change the direction of interest rates, economic growth, and inflation—the very same levers that move stock and bond prices as well as the dollar.

How can you know what the Fed is thinking? Luckily, the Greenspan Fed has shifted toward greater transparency in its decision-making. The chairman typically telegraphs coming monetary policy changes in speeches, although don't expect him to say, "We're raising rates next week." It's all in the emphasis. In a speech on Jan. 13, for instance, Greenspan made the case that the economy has not slowed enough to curb growing labor shortages and that wealth ga from the stock market mean spending is grow faster than supply. Add in the inflationa prospects from more expensive oil and it's ea to see why almost everyone expects the Fed hike its main policy rate, the federal funds ra by a quarter-point, to 5.75%, at its meeting Feb. 1-2. The central bank has already rais rates three times since June 30, and any crease will be announced immediately after t policy meeting has ended. To read the a nouncement, you can log on to the Fed's inf mative Web site (www.bog.frb.fed.us).

The federal funds rate is what one ba charges another to borrow money overnigh Any rate change is implemented by the Feder Reserve Bank of New York's Open Market Des When the Fed wants to raise the funds rate, sells U. S. government securities to commerci banks. In so doing, it takes money, or liquidit out of the banking system. When it wants rat to fall back down, it can pump money into th market by purchasing securities from banks.

LOUD GONG. The Fed can also change the di count rate when it alters the federal funds rat a one-two punch called "banging the gong" b cause it reverberates across global markets. Th discount rate is charged when a member ban borrows directly from the Fed, a move don when the bank can't borrow anywhere else. Th discount rate is usually set equal to or a hal

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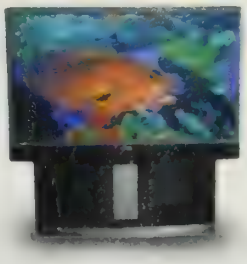

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point below the funds rate, and economists expect that the Fed will hike the discount rate from 5% to 5.25% in February. Lastly, the Fed can change the amount of reserves a bank is required to keep on hand, but that's rarely done.

The Fed lifts the funds rate, or tightens policy, because it wants to slow the economy and head off inflationary pressures. As the funds rate rises, banks increase their lending rates as well. Higher borrowing costs flatten consumer and business demand for big-ticket items that must be financed. Interest rates all along the yield curve rise, which means bond prices fall. In addition, stock prices may slip because higher-yielding bonds become more attractive to investors and higher borrowing costs and slower demand endanger future corporate profits. The stock market has stayed strong since the Fed began hiking rates last year because the moves have only taken back the three rate cuts of 1998. The Feb. 2 hike is already priced into the market, but expect some volatility if the announcement hints of more hikes to come.

Despite its new openness, the Fed still conducts its main work in relative secrecy for a government agency. Policy meetings of the Federal Open Market Committee are not open to the public or press, and the meeting minutes are not released until six weeks later. The FOMC meets eight times a year, on a Tuesday, although twice a year the confab spills over into Wednesday. The FOMC is made up of the seven Fed governors (there are currently two vacancies), the president of the New York Fed, and a rotating panel of four presidents of the other Fed district banks. According to economists, the incoming Fed presidents are more hawkish about inflation than their outgoing colleagues, signaling that they may argue for moves designed to curb price pressures (table).

Key Terms

FEDERAL FUNDS RATE What a bank charges another to borrow excess funds overnight. Fed can directly influence rate.

DISCOUNT RATE What the Fed charges banks that borrow directly from its discount window.

MONEY SUPPLY Measures of money in the economy. The most narrow, M1, counts only currency, traveler's checks, and most checking accounts. M3 includes everything from cash to mutual funds and eurodollar deposits.

RESERVES A percentage of certain deposits, mainly checking accounts, that all depository institutions must set aside. Required reserves can be held as cash in a bank's vault or in accounts at a regional Fed bank.

THE BEIGE BOOK Each Fed Bank gathers anecdotal information on current economic conditions. The Beige Book is published about two weeks before an FOMC meeting.

Although you can't peer into the FOMC sanctum, you can get a feel for what goe perusing an April, 1998, speech by Fed G Laurence H. Meyer that's available on the bank's Web site. It describes in detail wha place around the huge oval table at th Washington headquarters, culminating i Meyer describes as the "critical momen time to vote" on the course for monetary for the next six weeks or so. More oft not, the vote's outcome is pretty well set time ballots are cast. This is because Gre and the FOMC strive for a consensus vote **SPEED BUMP?** Traditionally, the chairm sesses how the members are leaning ar poses policy that will be acceptable to a sents are unusual, but not unheard of—an may signal the beginning of a shift in down the road. Or as Meyer observed seeds are sown at one meeting and harve the next." For instance, in October, policy kept rates on hold but they mentioned co about the growing shortage of labor. So wh next two employment reports showed tighter job markets, it was not a surpris the Fed raised the funds rate to 5.5% on N

If you want to keep an eye on the Fed Web, two good sites to visit are www.dism and www.fmcenter.org. For a while last you could also gauge potential changes i policy by watching for announcements c central bank's "policy bias," which was binding view of what policymakers thoug next rate change might be. A tightening bi instance, signaled the Fed was leaning tow rate hike. But instead of adding clarity, the ing of the bias caused confusion among inv last year. So beginning in February, the will simply report its judgment on the eco in the "foreseeable future," meaning a p well beyond the next FOMC meeting. Ther be only three boilerplate assessments: h ened inflationary pressures, economic weak or a balanced outlook for growth and infla

Right now, the Fed has a "neutral" b place. But since the economy is unlikely to on its own, the central bank may have to r et rates higher over the course of 2000. Ti monetary policy may be the speed bump th nally slows down the bull market.

The Fed's Voting Presidents

J. ALFRED BROADDUS JR.

Federal Reserve Bank of Richmond. Term ends in 2001. He feels "exceptionally strong" domestic demand may "cause the economy to overheat."

JERRY JORDAN

Federal Reserve Bank of Cleveland. Term ends in 2001. Considered by most economists to be one of the more hawkish Fed presidents.

JACK GUYNN

Federal Reserve Bank of Atlanta. Term ends in 2001. Forecast that the economy could grow between 3.5% and 4% this year, if inflation stays low.

ROBERT PARRY

Federal Reserve Ba San Francisco. Terr ends in 2001. Admit that productivity ha hiked th potentia growth rate, yet remains hawkish.

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BusinessWeek

In Love With the Dow

Strong's honchos say the S&P is too tech-heavy

MORONEY AND CARLSON *They co-manage "an enhanced index fund"*

Chuck Carlson of the two-year-old Strong Dow 30 Value Fund will take the Dow Jones industrial average over the Standard & Poor's 500-stock index any day. He observes that the S&P overweights megatechs, such as Microsoft, and underweights industrials, such as General Motors. Although the Dow recently added more tech to its average, Carlson thinks it's still more representative of the economy—and more likely to reflect any market shift into cyclicals. Carlson, editor of the DRIP Investor *and* No-Load Stock Insider *newsletters, and co-manager Richard Moroney, editor of the* Dow Theory Forecasts *newsletter, have divided their portfolio so that half mirrors the Dow and half is actively managed. Last year, the no-load fund returned 27.1%, vs. 27.3% for the Dow. But it outpaced the S&P's 21% gain. Through Jan. 20, it has done a bit better than both the Dow and the S&P in weathering the whiplash market, dipping 1.1%, vs. 1.3% and 1.6%, respectively. Carlson spoke recently with Standard & Poor's FundAdvisor Associate Editor Jane Sandiford. (A longer version is available at www.personalwealth.com)*

Strong Hand

STRONG DOW 30 VALUE FUND (SDOWX)

ASSETS*	$114 million
YTD TOTAL RETURN**	–1.1%
12-MONTH TOTAL RETURN**	22.5%
EXPENSE RATIO	1.2%

LARGEST HOLDINGS*
American Express, GE, J.P. Morgan, Hewlett-Packard, Microsoft, Boeing

*Through Dec. 31, 1999 **Through Jan. 20, 2000

Q: *How does the fund work?*
A: You could call it an enhanced index fu About 50% of the assets are in an equal num of shares in all 30 Dow stocks. The other 50% actively managed. We like GM and overweight We don't like Coca-Cola, and we don't own any it on the actively managed side.

Q: *Why did you underperform the Dow in 19*
A: One thing that hurt us was the Union Carb [merger] with Dow Chemical. We had und weighted Union Carbide because it really w not a good value stock. Dow Chemical ca along and proved us liars.

Q: *Why do you prefer the Dow to the S&P?*
A: The Dow is more representative of the ec omy. That view goes against conventional w dom, which says the S&P is a better reflection cause it's a broader index. [But] the top 30 stoc of the S&P 500 are large and, in many cas technology-oriented. What I like about the D is that, with the recent addition of Microso Intel, SBC, and Home Depot, it has greater N Economy representation, y you still have old economy re resentation. One reason the D did better than the S&P la year was the strength we sa in some of the industrial cyc cals. For example, Alcoa was 122% last year, and it's 3% to 4% of the Dow.

Q: *When the the Dow bulked up its technolog component last year, what did you do?*
A: We pretty aggressively overweighted Int and SBC.

Q: *How do you pick the stocks to overweight?*
A: We start out with a value screen that looks a traditional measures like price to earnings, pric to sales, price to cash flow. Then we look for catalyst for that value to be realized. A reaso we like GM is we think the auto industry is goin to hold up better in 2000 than others think. kicker to GM is its holdings in GM Hughes [th huge satellite business that just agreed to sell it manufacturing operations to Boeing]. If yo washed GM Hughes out of GM's price, the aut business is selling for less than four times earn ings. We think GM is going to unlock some of th value this year with the GM Hughes business Conversely, we try not to miss out on companie that are clearly not value stocks but that have strong price-earnings momentum. GE is a classic example. It's no bargain, yet it's a stock with sustainable, predictable earnings. So we try not to aggressively underweight stocks like GE, Home Depot, and Wal-Mart Stores.

Q: *What other names are you underweighting?*
A: Three stocks we don't own in the active portfolio are Coca-Cola, Procter & Gamble, and McDonald's. Coca-Cola hasn't demonstrated that it can rekindle earnings growth. And McDonald's and P&G look very pricey to us.

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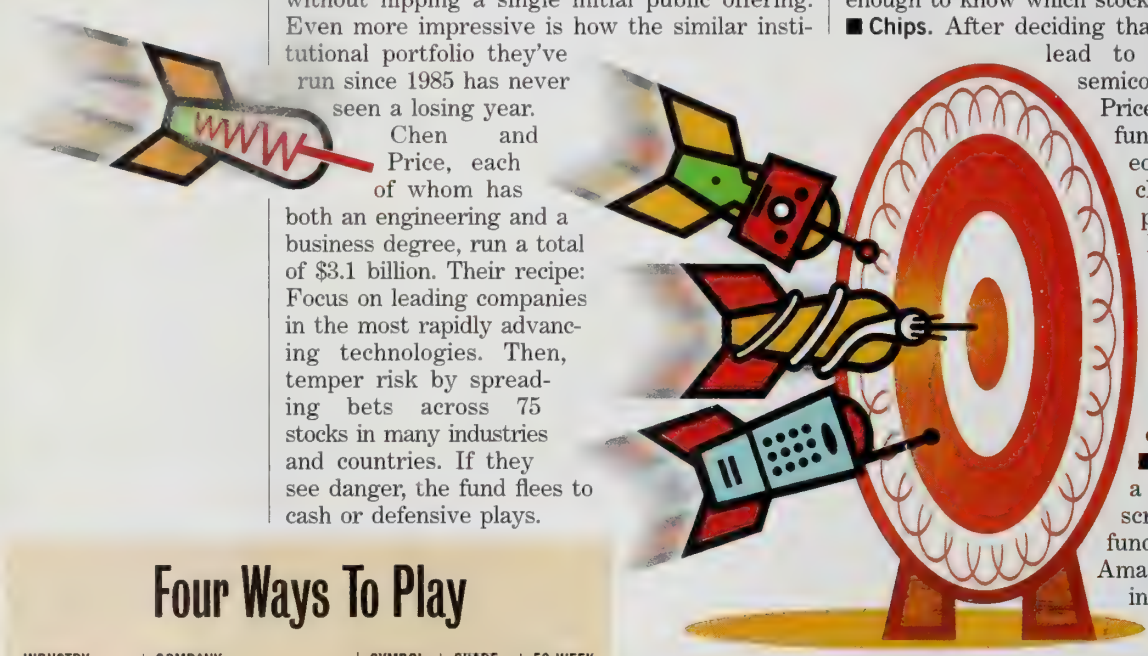
HIGH-TECH BETTING FOR THE RISK-AVERSE

BY ROBERT BARKER

I had Huachen Chen on the phone the other day and was astonished to find that even he was astonished. E-TEK Dynamics, a stock in the Dresdner RCM Global Technology Fund he co-manages with Walter Price Jr., had just jumped 66 points on word of a merger with fiber-optics leader JDS Uniphase. "E-TEK is actually the third time we've owned something that Uniphase bought," he said, stifling a laugh. Last year, such picks helped send the $480 million fund up 183%.

Pure luck? I don't think so. Chen and Price opened the no-load fund just four years ago, so you may not know them. But over the fund's life, it has returned more than any other mutual fund—an annual average of 64.5%. And it did so without flipping a single initial public offering. Even more impressive is how the similar institutional portfolio they've run since 1985 has never seen a losing year.

Chen and Price, each of whom has both an engineering and a business degree, run a total of $3.1 billion. Their recipe: Focus on leading companies in the most rapidly advancing technologies. Then, temper risk by spreading bets across 75 stocks in many industries and countries. If they see danger, the fund flees to cash or defensive plays.



Four Ways To Play

INDUSTRY	COMPANY	SYMBOL	SHARE PRICE*	52-WEEK HIGH
OPTICS	JDS Uniphase	JDSU	216 1/16	248
WIRELESS	Ericsson	ERICY	67 3/4	68 39/64
CHIPS	ASM Lithography	ASML	130 1/2	144
INTERNET	Check Point Software	CHKP	255 19/32	255 19/32

* As of Jan. 24 DATA: BUSINESS WEEK, STANDARD & POOR'S

What do Chen and Price see now? They aren't ignoring the risk inherent in tech stocks' unprecedented valuations. "It's a potential problem that we all have to ponder," Chen says. But they also see unprecedented opportunities, so the fund remains heavily invested, especially in optics, wireless telecom, chips, and the Internet (table). I pressed Chen for names of companies they're still keen on, even at lofty prices, and the reasons why:

■ **Optics.** No technology in memory, Chen and Price believe, offers as much potential. "Opt going to make integrated circuits look ta Chen said. The fund's top stake remains Uniphase, even though it has risen more fourteenfold in the past year. A more contro sial pick is Tyco International, which is bene from fiber-optic growth via its undersea- unit. The stock, lately around 38, got creamed year as questions about its accounting prom a Securities & Exchange Commission inq that is still going on. The fund's own close lo Tyco's last 16 cash flow statements tells fraud is unlikely. He sees profit growing at for the next three years—much faster tha price-earnings ratio of 18 would suggest. So Tyco has been a big loser for the fund.

■ **Wireless.** The fund enjoyed a huge Decem run in shares of Qualcomm, a big holding last But it's hedging with a basket of top names cluding Nokia, Motorola, and Ericsson, adde October. Chen thinks Nokia's managemen outstanding but warns: "I'm just not sm enough to know which stock is going to be be

■ **Chips.** After deciding that Y2K anxiety di lead to overstockpiling semiconductors, Chen Price recently rebuilt fund's holdings in ch equipment makers, cluding ASM Litho phy. Chen thinks Netherlands com ny could dou sales this year. estimates AS earnings, which Street sees near a share next year, closer to $3.50 or

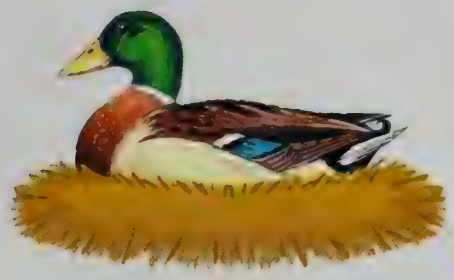
■ **The Internet.** Aft a debate Chen scribes as "fierce," fund this year dump Amazon.com. Chen thin investors are growi impatient for pr its. The fund ke a sizable stake in Yahoo! Japan, but mostly it focused on Net software makers and service co panies. A big gainer with lots of upside: Che Point Software Technologies, a U.S.-Israeli ma er of firewall and security programs. Chen se sales rising 50% annually over the next thre years, with profits nearing $5 a share in 200 more than double those over the past 12 month

Might some of these picks not pan out? Sur As investors send Chen and Price more an more money, the team's performance could suffe Or the market might devalue all technology. Bu if you're still eager to bet on tech, these guy know a lower-risk way to play.

For a Q&A with Chen, go to barker.online a www.businessweek.com/investor/ or AOL keywor BW Daily.

QUESTIONS? COMMENTS? E-mail barkerportfolio@businessweek.com or fax (321) 728-1711

OOKING FOR BETTER WAY O BUILD YOUR NEST EGG?



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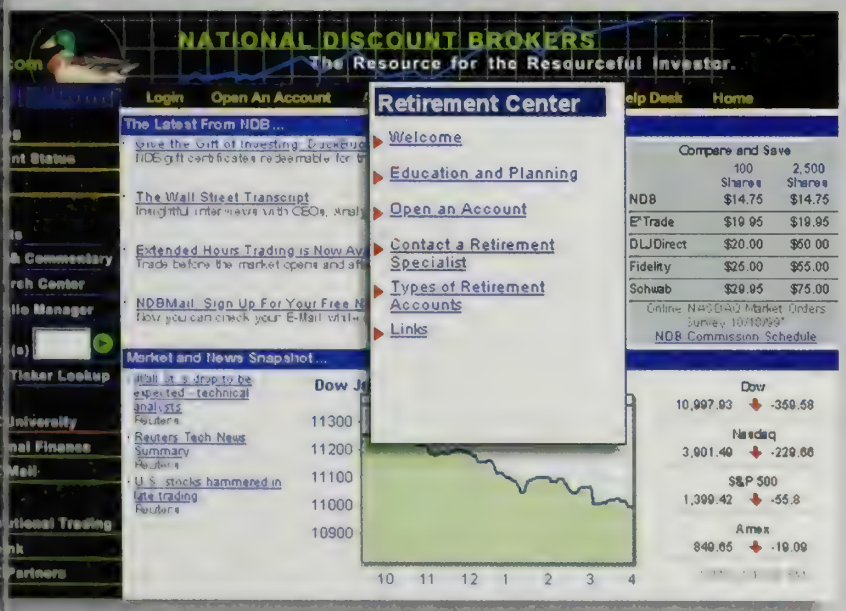

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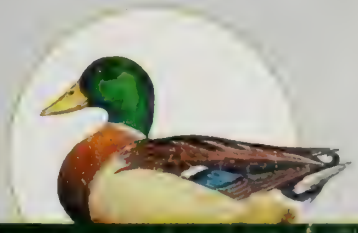

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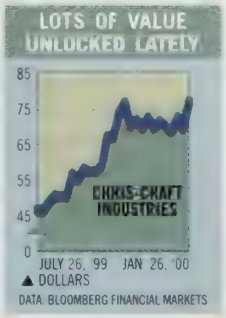
When Chris-Craft Industries (CCN) was featured in this column last June, several big stakeholders, including Mario Gabelli, thought CEO Herbert Siegel would decide to do a deal to unlock the value of the television broadcasting company's assets, mainly its 80% stake in BHC Communications. Since then, Chris-Craft's stock has vaulted from 45 to 76 on Jan. 26.

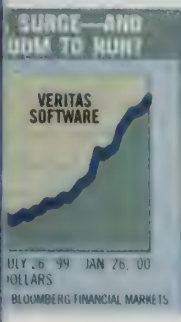
The latest buzz: Chris-Craft and CBS, which is being acquired by Viacom, are getting close to a deal. Gabelli, whose firm owns some 15% of Chris-Craft shares, figures the stock would be worth at least $3.3 billion in a buyout, or $80 a share. Chris-Craft and CBS started their talks, sources say, after the Federal Communications Commission's ruling in August allowing media companies to own two TV stations in a market, referred to as duopoly. CBS isn't the only suitor. News Corp. and Tribune Co. are also said to be talking with Chris-Craft.



Gabelli won't say whether a deal is imminent but just that CBS CEO Mel Karmazin understands the virtue of owning more than one property in hot markets. Chris-Craft, the eighth-largest TV-station group, which reaches 18% of U.S. households, owns 10 such trophy properties in the top 25 markets, including WWOR-TV in New York, KCOP in Los Angeles, and KBHK in San Francisco. CBS, which has been quite adept at operating multiple radio stations within a market, is likely to buy independent TV stations in major markets, says Gabelli. Would-be CBS parent Viacom owns 19 TV stations and several cable-TV channels, including MTV, Nickelodeon, and VH-1.

Money manager Mark Boyar thinks Chris-Craft's assets can only become more invaluable. The duopoly ruling, he says, has created a sense of urgency for the likes of CBS to acquire assets up to the limit in major markets. CBS declined comment, and Chris-Craft didn't return calls.

A TRUE 'EXPLOSION' FOR VERITAS



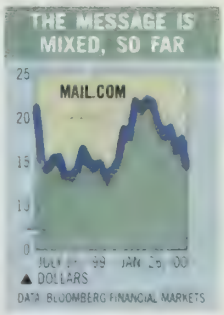
As technology research chief in New York for investment firm Invesco, Jay Nakahara (left) scouts for companies that have leading-edge technology but don't yet have marquee names. He thinks fast-growing Veritas Software (VRTS), a leader in enterprise data-storage management, is such a gem: one that he figures is still underpriced, in spite of the strong surge of its stock. Its shares, trading at 32 in August, had zoomed to 157 by Jan. 26. But Nakahara isn't at all concerned by the high valuation placed on the stock.

"The explosion in the amount of data that must be stored and retrieved has made data-storage management a critical tool in the Internet economy," says Nakahara, who thinks Veritas, whose products manage both online and off-line data for various computing systems, including the Linux platform, is still way undervalued, based on increasing demand for data-management services. He notes that major companies, including Sun Microsystems, Hewlett-Packard, Compaq, and Dell—which compete with one another—have one thing in common: They are original-equipment Veritas customers.

That may explain why Nakahara's estimates are rosier than the Street consensus: For 2000, he expects earnings of $200 million, or 75¢ a share, on revenues of $1.1 billion, vs. the Street's projection of $193 million, or 65¢, on $1 billion sales. He sees the stock hitting $200 this year.

MAIL.COM'S BUSY DELIVERY SCHEDULE

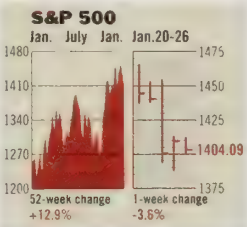
Mail.com (MAIL) hopes to be the ultimate global online bearer of the message: "You've got mail." The company provides online messaging services for Internet service providers, Web sites, and other businesses. Mail.com owns the rights to more than 1,200 domain names, such as Asia.com and India.com. "We are talking with several potential partners to develop these sites to offer a global selection of Internet services," says CEO Gerald Gorman, who aims to take India.com public by yearend 2000. India.com will provide search engines, directories, e-mail, and e-commerce products. A similar outfit, China.com (unrelated to Mail.com), went public at 20 a share; it is now at 85, with a market cap of $3.5 billion.



In the meantime, Gorman has been busy acquiring companies that deliver complementary services. A recent acquisition was NetMoves, which provides outsourced e-mail and fax delivery service. Mail.com's acquisition strategy broadens its product line and helps it gain access to new corporate customers, says PaineWebber analyst James Preissler, who rates the stock a buy. Mail.com derives much of its revenues from fees on outsourcing services, advertising, and e-commerce. Preissler estimates Mail.com sales in 2000 at $33 million, up from 1999's estimated $11 million. Mail.com has yet to make money. Preissler has a 12-month target for the stock, now at 15, of 50, based on expected earnings of $21 million, or 50¢ a share in 2001, on estimated sales of $71.8 million.

Figures of the Week

STOCKS



COMMENTARY

The market wrapped up the week in a slump in response to Fed Chairman Greenspan's remark concerning the rise in investors' margin debt. Investors also reacted to fears that the Fed will raise rates. Another downer: Qualcomm, along with other tech stocks, issued earnings warnings. The Dow Jones Industrial Average lost 4% for the week, while the Nasdaq Composite shed 2%.

Data: Bloomberg Financial Markets

U.S. MARKETS	Jan. 26	% change Week	Year-to date	Last 12 months
Dow Jones Industrials	11,033.0	–4.0	–4.0	18.3
Nasdaq Composite	4069.9	–2.0	0.0	67.3
Nasdaq 100	3621.3	–4.5	–2.3	75.6
S&P MidCap 400	441.8	–2.2	–0.6	17.1
S&P SmallCap 600	201.2	–1.1	1.7	15.3
S&P SuperComposite 1500	296.5	–3.4	–4.0	12.5
SECTORS				
S&P/BARRA Growth	840.0	–4.1	–5.3	17.7
S&P/BARRA Value	589.7	–3.0	–3.4	5.5
S&P Basic Materials	124.3	–6.9	–10.1	12.4
S&P Capital Goods	1038.7	–4.0	–6.4	19.7
S&P Energy	835.5	–3.6	0.1	21.5
S&P Financials	127.9	–0.3	–3.9	–1.7
S&P REIT	75.0	–1.2	1.9	–11.1
S&P Transportation	560.7	–4.4	–6.1	–14.8
S&P Utilities	245.9	3.1	8.2	–2.4
GSTI Internet	659.8	–5.0	–7.4	63.4
Morgan Stanley Cyclical	531.5	–7.3	–9.3	11.1
PSE Technology	981.1	–2.0	0.9	97.0

GLOBAL MARKETS	Jan. 26	% change Week	Year-to date
S&P Euro Plus	1485.7	–1.4	–4.3
London (FT-SE 100)	6375.6	–1.1	–8.0
Frankfurt (DAX)	6969.4	–1.7	0.2
Tokyo (NIKKEI 225)	19,111.2	1.1	0.9
Hong Kong (Hang Seng)	15,427.7	1.0	–9.0
Toronto (TSE 300)	8582.6	–0.6	2.0
Mexico City (IPC)	6918.9	–3.5	–3.0

FUNDAMENTALS	Jan. 25	Week ago
S&P 500 Dividend Yield	1.19%	1.16%
S&P 500 P/E Ratio (Trailing 12 mos.)	30.4	32.1
S&P 500 P/E Ratio (Next 12 mos.)*	24.1	24.9
First Call Earnings Surprise*	6.16%	7.21%

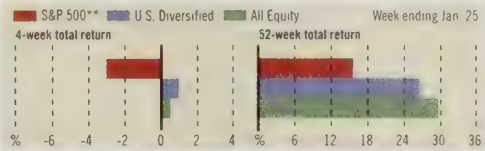
*First Call Corp.

TECHNICAL INDICATORS	Jan. 25	Week ago	Re
S&P 500 200-day average	1356.2	1353.9	P
Stocks above 200-day average	26.0%	30.0%	P
Options: Put/call ratio	0.45	0.40	Ne
Insiders: Vickers Sell/buy ratio	0.67	0.67	P

BEST-PERFORMING GROUPS	Last month %		Last 12 months %
Instrumentation	42.6	Instrumentation	226.7
Natural Gas	24.5	Oil & Gas Drilling	84.1
Entertainment	21.9	Communications Equip.	77.0
Defense Electronics	18.7	Semiconductors	76.3
Health-Care Services	18.1	Health-Care Services	72.6

WORST-PERFORMING GROUPS	Last month %		Las mon
Conglomerates	–17.6	Pollution Control	–
Hardware & Tools	–17.3	Tobacco	–
Leisure Time	–15.9	Office Equip. & Supplies	–
Gold Mining	–15.2	Manufactured Housing	–
Computer Software	–13.7	Food Chains	–

MUTUAL FUNDS



Data: Morningstar, Inc. **Vanguard 500 Index fund

EQUITY FUND CATEGORIES

Leaders Four-week total return	%	Laggards Four-week total return	%
Health	12.0	Japan	–7.3
Small-cap Growth	8.6	Precious Metals	–6.7
Technology	7.9	Financial	–5.3
Mid-cap Growth	7.3	Diversified Pacific/Asia	–5.2
Small-cap Blend	4.7	Pacific/Asia ex-Japan	–3.2

Leaders 52-week total return	%	Laggards 52-week total return	%
Technology	126.9	Financial	–7.4
Japan	93.3	Precious Metals	–4.6
Latin America	88.8	Real Estate	–2.8
Diversified Pacific/Asia	83.3	Large-cap Value	2.6
Diversified Emerging Mkts.	81.9	Mid-cap Value	3.5

INTEREST RATES

KEY RATES	Jan. 26	Week ago	Year ago
MONEY MARKET FUNDS	5.36%	5.37%	4.66%
90-DAY TREASURY BILLS	5.57	5.50	4.46
1-YEAR TREASURY BILLS	6.09	6.09	4.49
10-YEAR TREASURY NOTES	6.67	6.73	4.67
30-YEAR TREASURY BONDS	6.58	6.72	5.13
30-YEAR FIXED MORTGAGE†	8.23	8.30	6.78

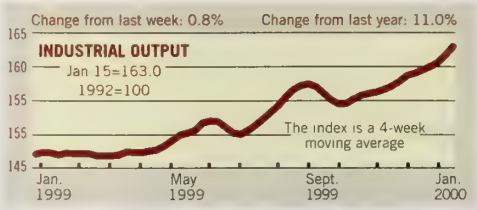
BLOOMBERG MUNI YIELD EQUIVALEN

Taxable equivalent yields on AAA-rated, tax-exemp municipal bonds, assuming a 31% federal tax ra

	10-yr. bond	30-yr. b
GENERAL OBLIGATIONS	5.23%	5.9
TAXABLE EQUIVALENT	7.58	8.6
INSURED REVENUE BONDS	5.35	6.2
TAXABLE EQUIVALENT	7.75	9.0

†BanxQuote, Inc.

BW PRODUCTION INDEX



Information on each of the index components is at www.businessweek.com.
BW production index Copyright 2000 by The McGraw-Hill Companies

The production index was up strongly i week ended Jan. 15. The unaveraged index also up, a modest 0.3%, to 164.3, from 1 After seasonal adjustment, auto, truck, and production posted gains. Because of revis made to the Federal Reserve's industrial duction data, the BUSINESS WEEK productio dex has been refigured for the last two years revised data can be downloaded at www.b nessweek.com (or AOL keyword: BW) in the se & download area.

THE WEEK AHEAD

PERSONAL INCOME Monday, *Jan. 31, 8:30 a.m. EST* ▶ December personal income likely rose 0.4%, the same gain posted in November, says the median forecast of economists polled by Standard & Poor's MMS, a unit of The McGraw-Hill Companies. Consumer spending likely jumped 0.8% for the month, after a 0.5% advance in November.

FOMC MEETING *Tuesday, Feb. 1, 9 a.m. EST* ▶ The Federal Reserve's Open Market Committee will meet for two days to set monetary policy. Nearly all the economists expect the Fed to hike both the federal funds rate and the discount rate by a quarter-point, to 5.75% and 5.25%, respectively.

NAPM SURVEY *Tuesday, Feb. 1, 10 a.m. EST* ▶ The National Association of Purchasing Management's index probably dipped to 56% in January, from 56.8% in December.

CONSTRUCTION SPENDING *Tuesday, Feb. 1, 10 a.m. EST* ▶ Building outlays were probably unchanged in December.

NEW HOME SALES *Wednesday, Feb. 2, 10 a.m. EST* ▶ New homes probably sold at an annual rate of 880,000 in December. In November, sales fell 7.1% to 865,000.

FACTORY INVENTORIES *Thursday, Feb. 3, 10 a.m. EST* ▶ Factories' inventories probably increased by 0.4% in December, after risin 0.5% in November.

EMPLOYMENT *Friday, Feb. 4, 8:30 a.m. EST* ▶ The S&P MMS median forecast projects a solid 235,000 gain in nonfarm jobs in January, on top of 315,000 new slots created in December. The median forecast also calls for the jobless rate to slip to 4%, from 4.1% in December.

BusinessWeek ONLINE

For more investment data and the components of the production index, visit www.businessweek.com.

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re with a significant reference to a company.
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DEFICIT REDUCTION VS. TAX CUTS

There are times when the American political cycle and the global economic cycle overlap to create a potentially dangerous situation. This could be one of them. Global growth is in a major upswing at a time when U.S. Presidential candidates are making big promises to cut taxes and boost spending. Oil is pushing $30 a barrel, commodity prices are rising sharply, and core inflation rates for the U.S., Europe, and most of Asia (except Japan) are beginning to creep up from their lows. With estimates for the budget surpluses growing ever larger, the debate over how to return a portion of it to tax payers grows ever louder.

In economics as in life, timing is everything. At this particular time, we think that using the surplus to pay down the federal debt and gradually lower interest rates is the best way to provide the greatest benefit for the largest number of people. Clearly, the risks of the moment are of an overheated economy. In this environment, a government budget in surplus makes the most sense. It cools demand and keeps interest rates lower than they would otherwise be, stimulating investment in capacity and raising productivity

Since the business cycle, though changed, is still with us, there will certainly come a moment when the economy turns down. When this happens, tax cuts on marginal rates and increased government spending will serve to boost demand and return the economy to solid growth. Right now, there is enormous demand in the U.S. economy—and fast-growing demand overseas as well. Slack in the global economy can no longer be counted upon to keep inflationary pressures under control.

Cutting taxes to increase take-home pay, boosting spending to improve the nation's infrastructure and the people's skills, and paying down the debt to lower rates can all play a role in nurturing economic growth. But timing is all important. With the U.S. economy running red hot, and Europe and Asia moving into high gear, the best use of the surplus right now is to pay down the debt.

IF YOU CAN'T TRUST THE AUDITORS...

What were they thinking? The recent Securities & Exchange Commission report on PricewaterhouseCoopers said that nearly half of its 2,700 partners violated the law by owning investments in companies audited by their firm, the world's largest auditor. Clean and reliable corporate financial figures are absolutely essential to the efficient functioning of the stock and bond markets. The SEC report that Pricewaterhouse violated the rules on conflict of interest is but the latest evidence of the erosion of independent auditing.

PricewaterhouseCoopers partners complain that the conflict-of-interest rules are too byzantine to understand, much follow. Perhaps so. But since the 1930s, SEC rules an counting standards have been left to the accounting fir administer. The SEC butts in only if something is amis why didn't the PricewaterhouseCoopers partners set clear set of do's and don'ts and enforce it? We don't kn

We do know that the prospect of growing rich quick investing in Internet startups is tempting many profess people to bend the rules. Some activities are risky but be In New York City, landlords are accepting options in startups in lieu of rent. They're taking a chance on big p gains while sacrificing current rental income. Fine. But tors investing in the very same companies they are req to vouch for? That's a no-brainer.

Accounting is an arcane art that people often find st fyingly boring. But transparent, trustworthy numbers critical to the U.S. financial system. It allows the marke work and sets the country apart from the crony capitalis others. The PricewaterhouseCoopers violation of conflict-o terest rules is no small matter.

FOR-PROFIT SCHOOLS PUBLIC BENEFITS

In the heated debate over reforming U.S. public sch most of the attention has focused on the issue of vouche using government funds to help parents send kids to priv usually religious, schools. The real action, however, has b elsewhere. Public schools run by for-profit educational m agement companies are are starting to have an impact tionwide. They are providing what the advocates of vouch are seeking, competition within the public-school arena, with the controversy over using tax dollars for religious purpos

While the voucher movement remains embroiled in le controversy, the for-profit trend is growing quickly. Alre 100,000 students in 200 schools are being educated un the auspices of such companies as Edison Schools, Advant Schools, and Beacon Education Management.

For-profits are, in effect, part of the larger charter sch movement. Operated independently of the rules that g ern most public schools, charters are publicly funded are free to design their own teaching environments. To that, they are hiring the educational management com nies, who change the curriculums, lengthen the school day, tend the year, offer merit pay and options to teachers, cut ministration expenses, and curb red tape.

There is a downside to for-profits as well. Unlike pub schools, they must pay for new schools, or rent old on Sports, art, music, and remedial classes are often cut to sa money. And they have trouble getting experienced tea ers. Truth is, hardly any are yet making any profit.

But many traditional public schools are already changing compete. In conjunction with the charter movement, f profit schools appear to be a powerful force in reshapi public education.

ss Week
ebruary 14

WHO CAN

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BusinessWeek

UARY 14, 2000 A PUBLICATION OF THE McGRAW-HILL COMPANIES

How prosperity is reshaping the American economy

Why the productivity revolution will spread

The risk that boom will turn to bust

THE BOOM

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SPECIAL REPORT

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www.businessweek.com AOL Keyword: BW

We thought of everything.
Even a quiet place to think.

*MSRP for **2000 I30 touring model shown is $31,540** and 2000 I30 luxury model is $29,465, **excluding $525 destination charge**, taxes, title, license and options. Retailer sets actual price. ©19

Introducing the all-new Infiniti I30. You open the driver's door and the seat moves back to ease your entrance. You reach for the Seton leather-wrapped gear selector and it ergonomically falls into your hand. You drive away and road noise is astonishingly absent. You spend just a few moments with the new I30 and you know an incredible amount of thought went into its design. From a stretched wheelbase that yields the most spacious cabin in its class, to a 227-hp engine that's the most powerful V6 in its class, to luxury touches like a custom-tuned Bose® audio system and power rear sunshade that would be a surprise in any class. Where do the bright ideas stop? On the new I30, they don't.

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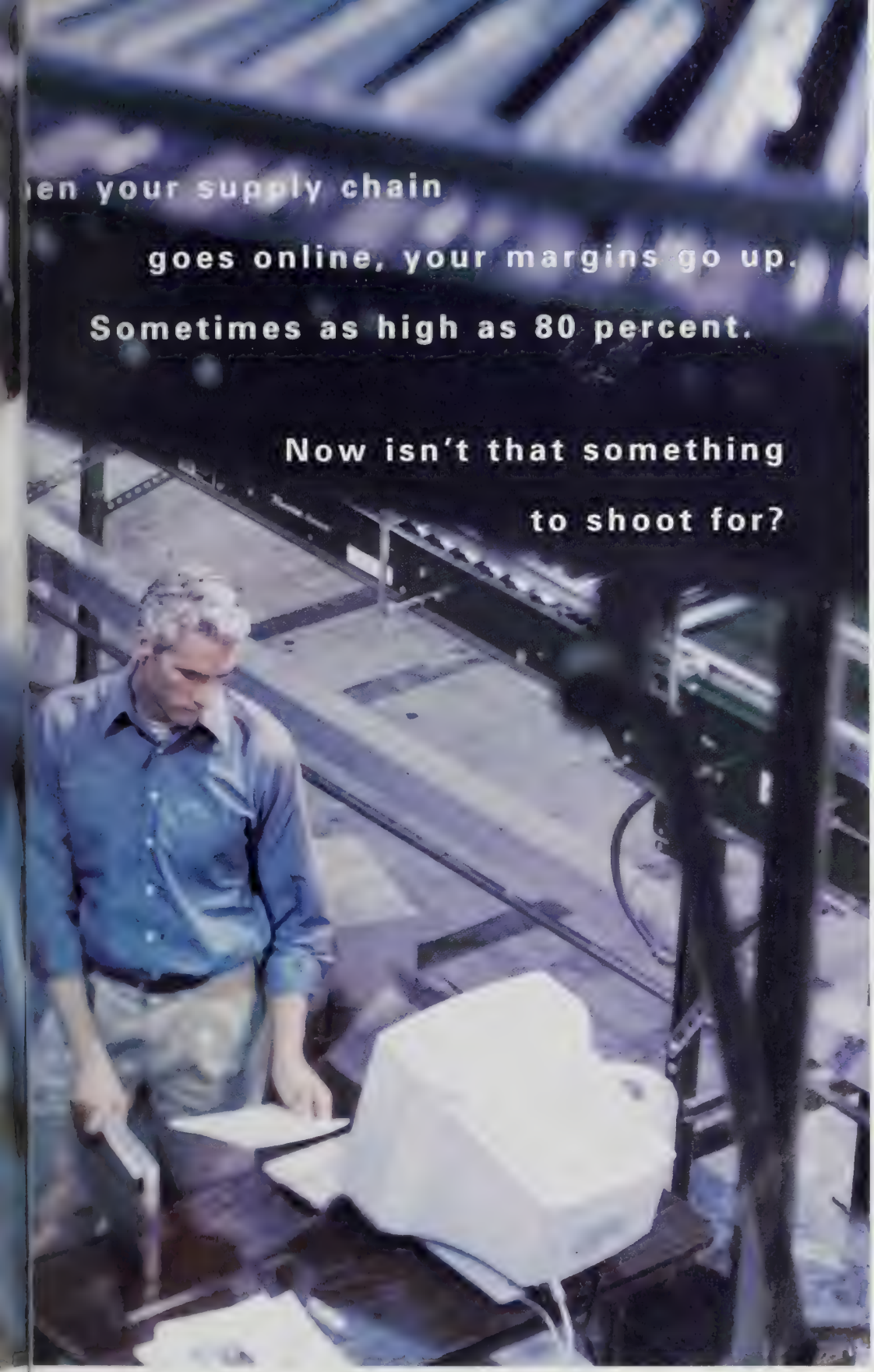

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Up Front

EDITED BY ROBERT McNATT

I-WAY PATROL

ARE THERE SECOND ACTS ON THE WEB?

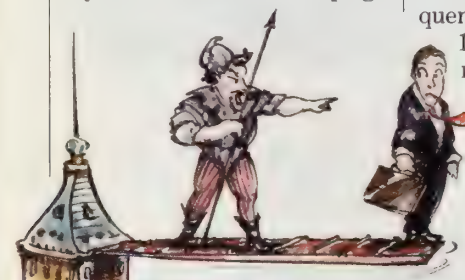
IT WAS A MUCH-BALLYHOOED team. In 1996, Microsoft united with BET Holdings Chairman Robert Johnson to christen MSBET.com, a site meant to be the No. 1 spot for African Americans. But what started out to be a wide-ranging portal ended up little more than an ad vehicle for Black Entertainment Television's cable shows.

JOHNSON: *New backing*

Now, Johnson is out to fix that, relaunching the site in February as BET.com. Buoyed by a $10 million ad campaign and $35 million in venture capital from USA Networks, News Corp., and Liberty Media, as well as Microsoft, BET hopes fresher content and design will reel in viewers. It hopes to record up to 1 million hits monthly to compete with rivals NetNoir.com and BlackVoices.com.

The relaunch has been put off for months, say insiders, as BET.com tinkered with its design and developed health, financial, entertainment, and general news areas.

"There probably are 200 articles a day related to African American issues, and they frequently don't make the first 10 pages of the general-market newspapers," says Stacie Turner, marketing veep. Are people ready for BET.com's new voice? It has spoken before. This time, it hopes people will listen. *Lorraine Woellert*



THE LIST HOT SEAT IN THE CORNER OFFICE

CEOs leave their jobs these days with the regularity of NFL coaches. Wall Street demands results from chiefs in the tech sector, while new business combos in finance require bosses with different sets of skills. Some high-profile exits: CIGNA's Wilson Taylor, General Motors' Jack Smith, and Excite@Home's Thomas Jermoluk.

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DATA: Challenger, Gray & Christmas, from media and government reports

TALK SHOW "I have grave concerns about our state's shameful record of convicting innocent people."

—Governor George Ryan of Illinois, saying why he favors a temporary halt to executions

TRADE WINDS

KOREA, HERE WE COME

AMERICAN AUTO MAKERS, who have long railed against closed markets in South Korea, have now joined with their European counterparts to pressure Korea to drop trade barriers. Although Koreans bought 914,707 cars in 1999, only 2,401 of them were European or American. General Motors, for example, sold a mere 68 cars in Korea; Volks-wagen, only 2.

"When we these figures, w cided we no l could be quiet," Stephen Collins o U.S. Automotive Policy Council. S carmakers got to er in Brussels in uary, warning K to open up or would press U.S. and the E pean Union to im import tariffs on Korean

With a recovering Ko economy growing 10% a ally, GM, Ford, BMW, and swagen all want to se Korea. A reform-minded ernment has started to move some trade barr say Korean officials. But auto companies say Seoul doesn't actively encourage ports the way the Japa do. Ultimately, the su way into the market ma to buy in. Both Ford and have been negotiating to chase the bankrupt Dae Motor. *William Echik*

TAXING MATTERS

ONLINE FILING, ABSOLUTELY FREE

HOLY IRS! IF EVERYBODY ELIGIBLE takes Intuit up on its offer, more than 55 million taxpayers could get their taxes done for free this year.

In a move to ameliorate computer illiteracy among poor Americans, the maker of personal-finance software is rolling out its Quicken Tax Freedom project, an expansion of a similar program it undertook last year under Chairman William Campbell. Anyone earning less than $20,000 or using the 1040EZ form can file a free online return. Low-income filers have not been a lucrative market for Intuit. Still, since Intuit would normally cha $9.95 to file with Quic software, it is potentially feiting $547 million.

CAMPBELL: *Grand gesture*

Some poor states are gerly promoting the free West Virginia Governor C Underwood, for instance, visit poor areas of the st in a "mobile office," pron ing Net use and filing via Quicke Web site.

Intuit's plan is latest in a series grand philanthro gestures from tech such as the Foundation, B Gates, and Jim Ba dale. Says Campb "This is our oppor nity to be able to g to people that are less for nate than ourselves." Int of course, also hopes to e some goodwill—and some n customers as well.

Roger O. Crock

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Up Front

CITY LIFE

TAKE ME BACK TO MANHATTAN

IRONY OF IRONIES: THE CONsultancy in New Jersey that spent a good part of the past 30 years helping big companies such as AT&T, United Parcel Service, Swiss Bank, and the precursor of its current owner, Deloitte Haskins & Sells, leave New York City, has decided to move back.

Deloitte & Touche Fantus Consulting, a site-location consultant (which has worked for The McGraw-Hill Companies, owner of BUSINESS WEEK) is pulling up stakes in Princeton, N.J., and returning to New York—having left in the early '70s. James Schriner, director of location strategies, says Fantus is moving back to be closer to its clients—who view the city more favorably than in past years—and to parent Deloitte & Touche. The move will also make it easier to recruit young consultants, who prefer the city to a family-oriented college town. Fantus has 100 employees in the U.S. and about 15 in metro New York.

The company is eager to get to its new Manhattan offices. But it won't get there as fast as it wants. A dearth of construction workers, caused by the booming office market, has put off the return of the prodigal consultants. At first due in November, Fantus is set to arrive in New York in March. □

LEAVING NEW YORK...

COMPANY/DECISION DATE	DESTINATION
AT&T 1979	New Jersey
DELOITTE 1987	Connecticut
FANTUS 1971	New Jersey
UPS 1975	Connecticut
SWISS BANK 1994	Connecticut
...AND RETURNING	
FANTUS 2000	Manhattan

DATA: FANTUS

CHURCH & STATE

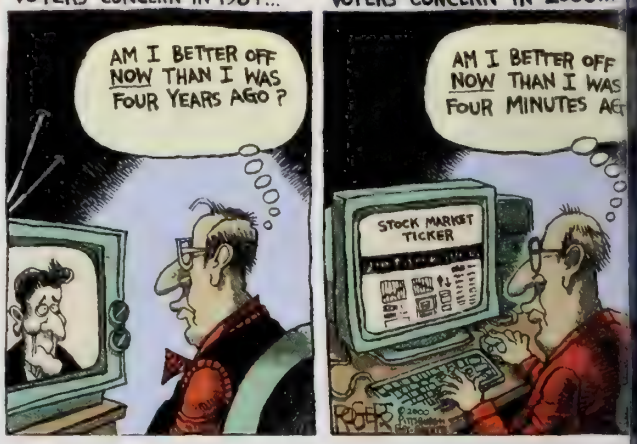
A NEW ROMAN INDULGENCE

WHEN POPE JOHN PAUL II proclaimed the year 2000 Jubilee Year in Italy, Rome decided to freshen up a bit. The city, expecting to reap millions from tourists and pilgrims, has spent $850 million on everything from highway construction to setting up emergency medical stations.

Among the projects is a $95 million renovation of Leonardo da Vinci airport. Included are new shops and restaurants and a chapel that the authorities hope will cause travelers to stop—and spend. Why? Because the chapel offers indulgences: for Catholics, the remission of all or part of the soul's punishment in purgatory. No, the church isn't selling the indulgences, and the city is not taxing them. That sort of thing went out after Martin Luther denounced the practice. But the airport chapel will be the only site in Rome outside its four cathedrals where indulgences can be regularly obtained. It thus promises to be a major stopping place for visitors. The church asks only for donations. Secular authorities, however, expect more. They estimate at least an additional $10 million a year in spending at the airport, and point to the chapel as one reason people will linger—and spend. *Kate Carlisle*

PAPAL DECREE: *Jubilee Year in Italy*

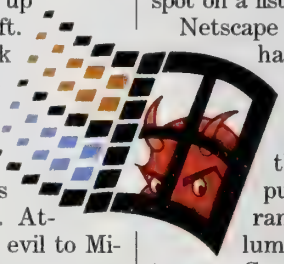
DRAWN & QUARTERED



I-WAY PATROL

KEYWORD: WINDOWS 666

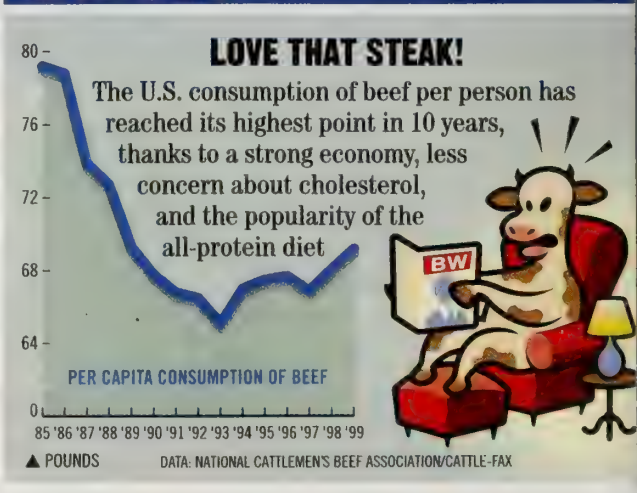
ASK AN INNOVATIVE SEARCH engine, Google, to search for the ultimate evil—more evil than, say, Satan—and the answer you'll come up with is...Microsoft. No, it's not a trick of some jealous Silicon Valley techie or a finding of fact by Judge Thomas Penfield Jackson. Attributing ultimate evil to Microsoft is an unforeseen consequence of Google's design for a better search engine.



Most search engines look for "metatags"—key words invisible to surfers but not to search engines. By constantly repeating those words, Web marketers can get their sites to the top of a list of sea results, even if their pag not really what a searc wanted. To avoid that, Go instead uses an algorithm analyzes the number of linl pages with the terms. M links from pages coverin specific topic means a hig spot on a list of search resu

Netscape and Walt Dis have also pla high on "evil" list times. But r they have b pushed to a lo ranking by the luminous comm tary on Google's devilish sult vis-à-vis Microsoft. S ranks No. 1, according Google. Microsoft is tak it all in stride. S spokesman Adam So "We're not going to get worried. We're always g to be No. 1." *Roy Furchg*

THE BIG PICTURE



FOOTNOTES dian tenure in 1999 of discharged managers and executives: **10 years**; median tenure in 1991: **6.5 years**

DATA: CHALLENGER, GRAY & CHRIST

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Editor's Memo

CUTTING THROUGH THE MAZE OF INVESTMENT ADVICE

With TV, the Web, and print media furiously competing to deliver the latest word on personal investing, it's more important than ever to find a clear voice to help you get through the financial information maze. That's where BUSINESS WEEK Investor comes in. When we redesigned and expanded this section last spring, we made sure to include columns that get to the heart of what's on investors' minds. In addition to *Inside Wall Street*, by Senior Writer Gene G. Marcial, we launched *The Barker Portfolio*, a column by Senior Writer Robert Barker. Now, we're adding a third: *Hers*, by Personal Finance Editor Toddi Gutner (page 150).

BusinessWeek Investor

Gutner and Barker (top) offer personal takes on financial issues. Marcial tracks the stocks that are primed to move

For more than 25 years, *Inside Wall Street* has been keeping you up to date on stocks primed to move, while *The Barker Portfolio* features a more personal take on everything from valuing hot IPOs to online tools to manage your retirement portfolio. In *Hers*, you'll also find a personal approach—and a wake-up call for women from their teen years through retirement. This week, Gutner asks why girls aren't taught the rudiments of finance and explains what some movers and shakers are doing about it. But *Hers* also addresses broader issues that women—and men—need to heed. For one thing, women tend to build inadequate nest eggs for retirement. That's important, because some 90% of women will be in charge of their finances at some point in their lives.

Hers will appear regularly. Like many of our columns, it has an online dimension. At businessweek.com/investor/, *Hers.online* will feature a message board and question-and-answer sessions with financial professionals. Our stable of online investor columns also features *barker.online; Street Wise*, by Amey Stone and Sam Jaffe; *Sound Money*, by contributing economics editor Christopher Farrell; and *Sector Scope*, by guest columnist James A. Anderson, a journalism professor at New York City University.

Don't forget the market news and exclusive commentaries from Standard & Poor's analysts on our sister site, personalwealth.com. Whether you want to track hot stocks or need help planning your retirement, our columnists can assist you in making those tough investment choices so critical to your financial health.

Mark Morrison

Managing Editor

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E SIERRA CLUB HASN'T DORSED ANY CANDIDATE

'Why Al Gore has the greens seeing l" (Washington Outlook, Jan. 24) may slead readers about the Sierra Club's ivities in the Presidential race. The icle excerpts a memo representing individual views of a Sierra Club ırd member and blows it out of pro-tion. Contrary to the impression cre-d, the Sierra Club has not yet taken osition or made an endorsement of candidate running for President. In t, the club's Political Committee has ely begun the democratic process it s to make such an important deci-n. The club believes that both Vice-sident Al Gore and Senator Bill ıdley have strong records protecting air, water, and land.

The Sierra Club applauded Gore's an-ıncement that as President he would t new oil drilling off the California l Florida coasts. In contrast, it was sident George Bush and then-Florida nmerce Secretary Jeb Bush who ap-ıved the Chevron leases for oil and exploration off the Florida coast.

Due to the similarity of Gore's and ıdley's records, and the need to fully icit the views of club members, the b has not yet endorsed a candidate President. In addition, it hopes that of the Presidential candidates will lress three pressing questions:

What binding, concrete emissions re-tions would they advocate to fight bal warming?

low would they fix international trade eements and rules to enhance envi-ımental protection worldwide?

What policies would they advocate to ft the U.S. to a 21st century econo-that cuts dependence on natural-re-ırce extraction and combustion?

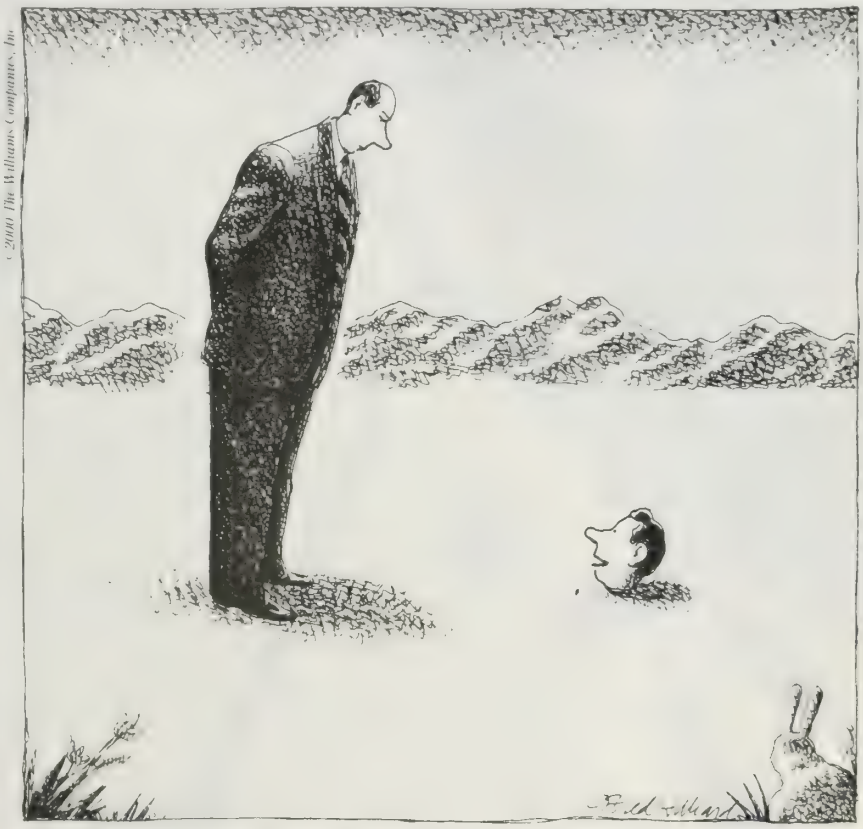
Poll after poll indicates that Ameri-s want a clean and safe environment. e next President will be responsible fulfilling this strong public desire. e Sierra Club will undertake a thor-gh analysis before it makes this criti-endorsement.

Chuck McGrady
President
Sierra Club
Flat Rock, N.C.

I'S REAL DADDY IS WILLIAM C. DURANT

In "Is this baby built for cyber-ıce?" (Cover Story commentary, Jan. , John Byrne gives credit to Alfred P. an for the "monumental acquisition l vertical integration" of General Motors Corp. in the 1920s. In fact, every automotive division of GM was developed and/or acquired by William Crapo Durant, starting with his collusion with then-famous race-car driver Barney Olds and the Oldsmobile Div.

During those early years, Durant, with uncanny insight, founded and built GM by acquiring or developing Buick, Cadillac, Pontiac, Body by Fisher (Fisher Brothers), Frigidaire, Delco, GM Trucks, GMAC, etc. Unfortunately, as great an entrepreneur as Durant was, he was a greater gambler, nearly bankrupting GM with his shortsighted competition to beat Henry Ford in the tractor business. The DuPonts, who were the major investors and major paint suppliers to GM, fired Durant as chairman, only to allow him to return after



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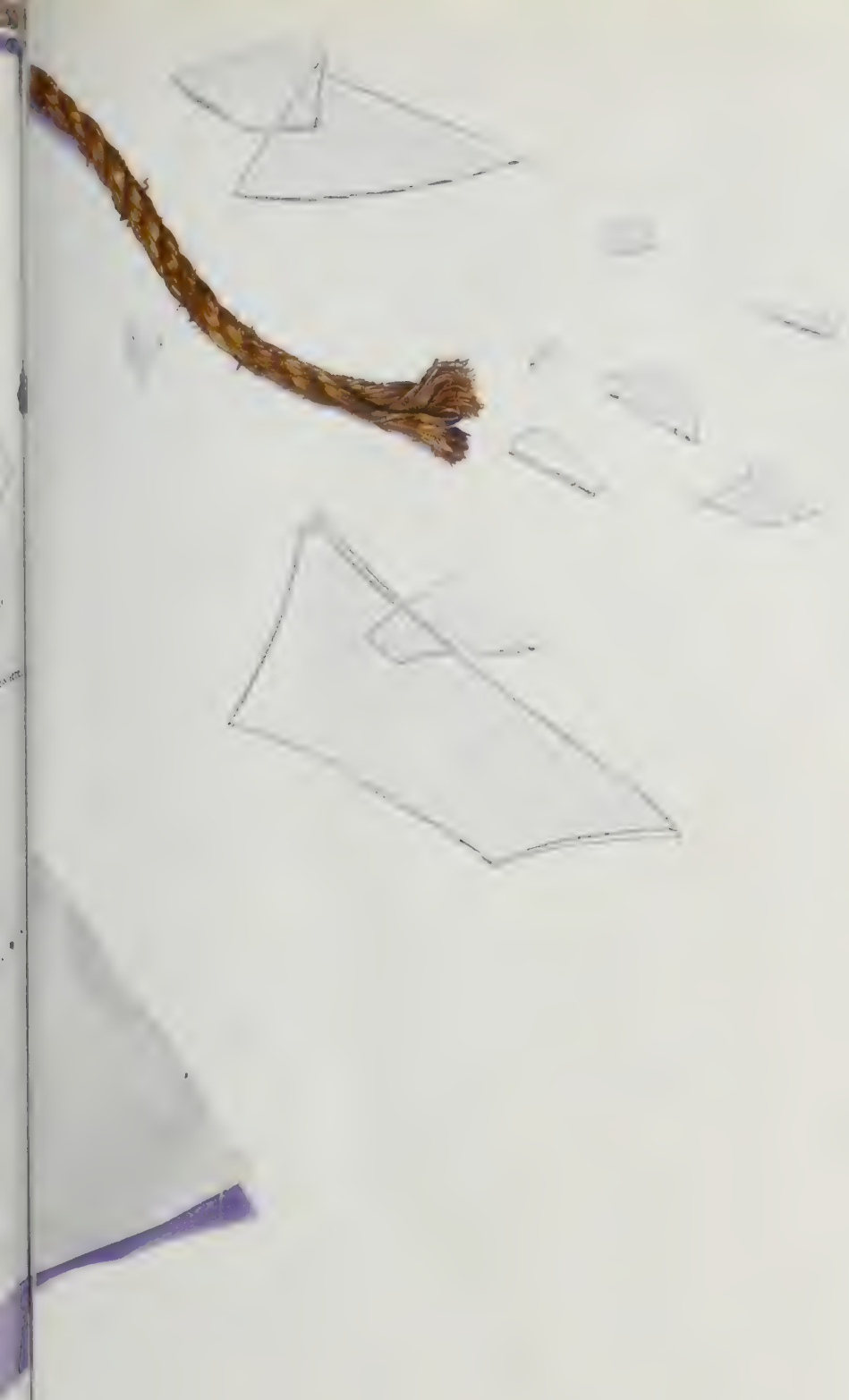

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CORRECTIONS & CLARIFICATIONS

In "Our annual guide to mutual funds" (Special Report, Jan. 24), we incorrectly stated the percentage of mutual funds that got A ratings. The correct number is 7.5%.

"A new Net equation" (News: Analysis & Commentary, Jan. 31) incorrectly stated that Lycos Inc. attempted to buy USA networks Inc. In fact, USA Networks attempted to buy Lycos.

they were forced to merge GM with Durant's new industrial creation, Chevrolet.

Once again, Durant's gambling, entrepreneurial style caused fluctuating boom-and-bust cycles at GM, and Sloan was brought in to provide modern management techniques. Hence, Sloan is noted as the "father of modern management." Because of Durant's fantastic successes and equally significant failures, this important figure has been forgotten, while Sloan is remembered.

Dennis R. Nyren
Lake Forest, Ill.

SUDDENLY, 1984 LOOKS LIKE A WALK IN THE PARK

While the title was catchy ("On the Web, it's 1984," Technology & You, Jan. 10), you may have forgotten that Winston (Orwell's protagonist) could sit privately at his desk in an alcove at home. We seem to have lost this option. I was startled enough to discover "e-mail capturing" at my place of employment, but to be suddenly barraged at home by e-mail and screen ads addressed to "James Z2 Fox" was even more bewildering. I discovered that I had incorrectly entered information on my computer profile. I further discovered I could review the "cookies" America Online Inc. and others were leaving on my hard drive. Resentment? You bet.

I am slowly moving into this cyberspace world. But to my dismay this electronic highway has no cops and an awful lot of highwaymen. The only saving grace to date is that I have not changed that error in the profile, so when I am hailed as "James Z2," I know it's the wolf and not Grandma!

James Fox
Lodi, Calif.

THE NEW ECONOMY FULFILLS AN OLD PREDICTION

After exploring the social and economic problems of blacks in America in 1938-40, Gunnar Myrdal, the Swedish 1974 Nobel laureate in economics, argued that inequalities between rich and poor would increase, rather than disappear, because poverty tends to breed poverty. "Though it's a New Economy, it's got some old flaws" (Economic Viewpoint, Jan. 10) establishes that the trend is being reinforced by the information technologies of the New Economy. This regretful situation demands action—by governments, academicians, politicians, international organizations, and media—along the lines at the end of the column calling for imaginative policies.

On average, the 6 billion of us now on the planet live much better than the 2 billion of 100 years ago. But the current poorest 2 billion most likely live worse off. This leaves a big question mark over what progress means and whether we are really making it.

Gustavo Estrada
Miami

WINDOWS CLEARED THE WAY FOR BUSINESS APPS

"Is Windows ready to run e-business?" (Information Technology, Jan. 24) made a good analysis of why Microsoft Corp. is not a monopoly. While 10 or more years ago there may not have been as many strong rivals to Microsoft in the operating system arena, that certainly is not the case today. Moreover, these current rivals did not ap overnight in response to the go ment's lawsuit.

In fact, when Windows appeare the scene, it served an important tion that many business-system de opers were scratching their heads how to provide. Microsoft's approac multiple windows spurred the enha ment of many new business applicat while simultaneously spurring growth of many new technology co nies, including Netware giants.

A. Sund
Torrington, C

MAY YOUR MUTUAL FUND LIVE IN BORING TIMES

Not surprisingly, "Mutual Fu What's wrong" (Special Report, Jan. points up funds' general failure to m the indexes. But rather than mo one's money from fund to fund in hopes of catching the right industry region, a lot of investors look for a tual fund in which their money can s ly sit for years—decades, even.

As important as how well a f keeps up with a surging index whether or not it also tumbles as with every downturn. If not getting much out of a boom also means not ing in a bust, that's a good fund.

Eric Rosenbl
New Y

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Red alert.

BY STEPHEN H. WILDSTROM

TV AND THE NET: NO MARRIAGE YET

Slow connections and blurry Web pages make today's all-in-one offerings fall short

If you read some of the more enthusiastic accounts of the America Online-Time Warner deal, you might believe the long-awaited convergence of television and the Internet is just around the corner. Over the past month or so, I've spent a lot of time using a device that takes convergence about as far as it can go today, by combining satellite TV, digital recording, and the Internet. While it was fun and intriguing, my experience suggests that this sort of convergence has a long way to go before it catches on.

I tested an EchoStar DISHPlayer 500 satellite receiver (www.dishnet.com), which incorporates Microsoft Corp.'s WebTV Plus service for Internet access. I found the satellite-TV part of the package a lot more satisfying than the Internet portion. The service has three pieces. First, you need a 20-inch EchoStar dish antenna, a DISHPlayer receiver, and a subscription to one of the DISHnet programming plans (table).

DISHPlayer 500 includes a large hard disk, which, in conjunction with WebTV's Personal TV service, can be used to record up to 12 hours of programming. You can also hit a pause button while watching a show live, grab a snack, and return to the show where you left off. The effect is similar to the standalone digital TV recorders from TiVo and Replay Networks, but putting the satellite receiver and recorder in a single box makes for a dynamite entertainment combo. (DirecTV also plans to offer a receiver with TiVo built in.)

The quality of the reception is outstanding—superior to either broadcast or standard cable. However, the system of searching for shows to watch or record could stand improvement. Both TiVo and Replay's latest versions make it much easier than Personal TV to create groups of favorite shows or channels.

Adding the Internet to the package is an intriguing idea, but it doesn't work very well. First, a TV remains a lousy device for displaying Web pages. The first problem is with WebTV's service, which hasn't changed much since its debut in 1996. Compared with the Netscape Communications and Microsoft Explorer browsers on PCs, WebTV is primitive. You navigate the screen—tediously—by using arrow keys on a remote or wireless keyboard to move through highlighted links, one after another. And for a TV-based medium, the WebTV browser has limited capacity for Net audio and video.

The e-mail program is also minimal, with little ability to deal with attachments.

Even if the browser were better, the combination only emphasizes the poverty of the Web as a visual medium. Compared to high-quality TV, Web pages are static and usually dull, and comparing Web banner ads with TV commercials is laughable. A full-screen video image requires that data be fed at a steady rate of at least 1.5 million bits per second, and it will be years before the Web can deliver that. Even with cable modems or high-speed digital subscriber lines (DSL) into homes, the Web is not capable of that sort of sustained speed.

The payoff for combining the Web and TV should come from interactive television. Web links that appear live on your screen and invite you to interact in some way with the broadcast. But WebTV's brand of interactivity adds little. You can play along with *Jeopardy* or *Wheel of Fortune* (sometimes I've managed nicely without interactive TV or respond to polls on MSNBC—and little else).

DEADLY WAIT. A big handicap for interactive TV and other WebTV Internet services is that they rely on dial-up connections. By the time I waited a couple of minutes to establish a connection, I often forgot what I wanted to interact with. Similarly, waiting several minutes for a response to a click on a movie's Web link is painful. This would work a lot better if WebTV were paired with a two-way cable system rather than the inherently one-way satellite TV. Unfortunately, that's not an option now.

The convergence of the Web and television remains an appealing but elusive goal. The programming choices and image quality of satellite TV make a terrific combination with digital recording features. But the Internet part of the package has a long way to go to overcome slow connections, poor-quality display, and a clumsy browser.

THE COST OF CONVERGENCE

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:E UPON A TIME IN NEW YORK
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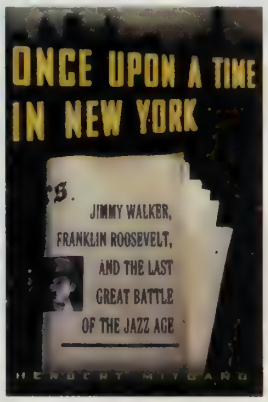
HE LAST DAYS OF ABYLON ON THE HUDSON

New Yorkers who read *Once Upon a Time in New York*, Herbert Mitgang's chronicle of the nfall of Roaring Twenties Mayor my Walker, may feel robbed. As in 1920s, the city is once again being nsformed by an economic boom that earranging the skyline and redefining . But how does life in this gleaming al capital stack up against the ham of Babe Ruth, George Gersh-, and Texas Guinan?

ure, the 1990s brought unprecedented wealth on Wall eet and even gave birth new high-tech industry ilicon Alley. But where-he '20s featured the Algonquin Round Table, the ton Club, and the gfeld Follies, the legacy he '90s seems to be the r bar and a rendition of es Square that would e sent Damon Runyon ight back to Kansas. where is the comparison ween the decades more ressing than at City Hall. In Walker, w Yorkers had a chief magistrate y could look up to—at least when it e to the essentials: knowing how to ss, where to find the best akeasies, and which show had the tiest chorus girls. Now, when New kers have the money to kick up r heels, they're stuck with Rudolph liani, a wet blanket who won't even rate jaywalking.



). K., Walker was a corrupt Tammany l hack. In fact, he was a second-generation Tammany man, following in the steps of his father, an Irish émigré landed the lucrative post of superintendent of public buildings in Manhattan. The son rose through the ranks, by 1909 had a seat in the New k state legislature, where he served alongside the young Hudson Valley grandee, Franklin D. Roosevelt. *Once Upon a Time* tells the tale of how, two decades later, Roosevelt's Presidential ambitions put the duo on a collision course. As Mitgang tells it, Walker's downfall began almost by accident with the 1928 rub-out of the politically connected gambler Arnold Rothstein—the man who allegedly fixed the 1919 World Series.

When the crime remained unsolved two years later, reformers pressed for an investigation into the notoriously corrupt Magistrates Courts. Roosevelt, by then governor and aiming for the White House, was leery of the probe. Even though he could score points nationally by cleaning up corruption in the city, he needed Tammany's help to get the Presidential nomination. But Walker's fate was sealed by the selection of Judge Samuel Seabury as the investigator of the courts. A self-made millionaire and crusading liberal lawyer with his own Presidential ambitions, Seabury proceeded, in Ken Starr fashion, to expand his inquiry until it reached the mayor's office.

The story reaches its climax in the summer of 1932, when Roosevelt presides over a hearing in Albany where he grills an evasive Walker about his implausible personal finances. It is through the "beneficence" of his friends, Walker explains, that he is able to live the life of a millionaire—with two chauffeured limousines, a home away from home in the Mayfair Hotel (more convenient to the apartment of his mistress, the actress Betty Compton), and a wardrobe that included scores of custom-made suits and silk shirts—all on his $25,000

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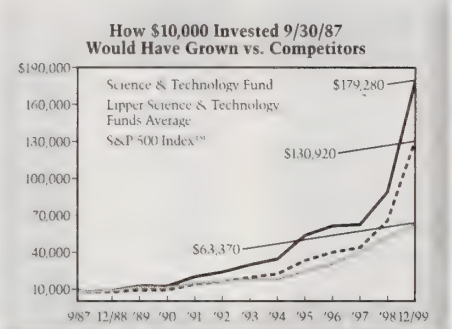

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*Fund inception date: 9/30/87. The fund was also ranked #6 out of 12, #20 out of 31, and #71 out of 99 science and technology funds for the 10-, 5-, and 1-year periods ended 12/31/99, respectively. Among all equity funds, the fund was ranked #6 out of 885, #50 out of 2,770, and #317 out of 7,082 funds for the same respective periods.

†Morningstar proprietary ratings reflect historical risk-adjusted performance as of 12/31/99. These ratings may change monthly and are calculated from the fund's 3-, 5-, and 10-year average annual returns in excess of 90-day Treasury bill returns with appropriate fee adjustments and a risk factor that reflects fund performance below 90-day Treasury bill returns. The fund received 5 stars for the 3-, 5-, and 10-year periods. The top 10% of the funds in a broad asset class receive 5 stars.

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Books

salary. While these men may have interests in bus companies and o concerns doing business with the city insists there is no quid pro quo— some friends helping friends.

But by then, the Roaring '20s l faded, and so has Walker's glib ch The voters who had always winke the lovable scoundrel's antics are q ing in bread lines. As the summe 1932 drags on, it becomes clear e within Tammany's 14th Street wigv that things have changed: Al Smith, Tammany stalwart who headed the tional Democratic ticket in 1928, is and Roosevelt is in. Walker is a poli liability.

The mayor gamely keeps up app ances: A bevy of chorus girls pops every time he departs from Grand C tral Station for the proceedings in bany. But he knows the game is "Jim, you're through," Smith tells protégé. "You must resign for the g of the party." He does so just befor reluctant Roosevelt—still wary of los Tammany—is getting ready to use power as governor to remove the m or. Walker then joins Compton in rope, where he spends the rest of '30s in splendid exile.

Mitgang, a veteran *New York Ti* reporter, makes good use of news c pings and the official records to do ment the tale of Walker's undoing. does less well when he tries to provid crash course on New York—and world—in the '20s. In one breathl chapter that covers everything fr Charles Lindbergh to Mae West a Mussolini, he writes: "One star perfor on the burlesque circuit was known her remarkable ability to jiggle the t sels on the nipples of her ample brea in opposite directions at the same ti But all was not fun and games in field of entertainment. New York w also the center of book and magaz publishing...." More problematic, t author fails to convey just what it w about "Gentleman Jim" that enabled h get away with it for so long.

Even so, *Once Upon a Time* is fascinating tale of bare-fisted polit and a nation that—three decades p the peak of the great wave of imm gration—was outgrowing its Tamma Halls. Two years after Walker's ex Fiorello LaGuardia struts onto t stage and, using his connections to f low reformers in the New Deal, forg a new relationship between Washingt and the cities. Government got bett But not more interesting.

BY GEOFF LEW

Lewis is news edit

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Reviews and more are available on **AOL** (Keyword: bw) or **www.businessweek.com**

HOT TYPE CALL IT HOMAGE—OR RECYCLING. NOW, snippets of verse from several of the top-selling Dr. Seuss children's books have been recombined to create another best-seller, *Seuss-isms for Success*, No. 11 on this month's hardcover list. This diminutive volume (it has 28 4-inch by 5½-inch pages) draws upon the efforts of the late Theodore Geisel to offer teachings on topics ranging from micromanagement to synergy and delegating.

Of course, little here is really useful—except, perhaps, for generating some polite smiles around the cubicles. For example, would-be innovators are told: "If you want to get eggs you can't buy at a store, You have to do things never thought of before." And from *The Lorax*, we get the following maxim "on growth": "Business is business! And busine must grow; regardless of crummies in tummies, you know Tell that to your influenza-stricken colleague.

As an editor, I could sympathize with "poor Mr. Potter, crosser, I-dotter," pictured sitting in a typically Seussian hi and wobbly chair, slaving "in an I-and-T factory out in V Nuys!" But the figure I longed for was that apostle of anarc the Cat in the Hat. Then I found him—shorn of his mayhe making ways, little more than a Polonius in a stovepipe h "Keep your eyes wide," says the now-tiresome tabby; "Y might learn a way to earn a few dollars." Oh, please: Bri back those rabble-rousers, Thing One and Thing Two.

BY HARDY GRE

ROBERT J. BARRO

LUELESS ON THE ALPS OR WHY I'M DOWN ON DAVOS

LUSIVE: edillo got ugh on obaphobes, ut Clinton andered to iem. And ie purpose it all emained nclear

After false starts in previous years, I finally made it to the World Economic Forum in the picturesque ski town of Davos, Switzerland. One of the major themes this year was globalization, particularly the role of international flows of goods, credit, and technology. President Bill Clinton and Prime Minister Tony Blair expounded on this topic and attracted huge crowds, but the prize for insightful reasoning on free trade clearly goes to Mexican President Ernesto Zedillo.

In fact, his talk was so good that I have been forced to upgrade my assessed value of a PhD in economics at Yale. Zedillo referred correctly to the beneficial effect of trade openness on economic growth, but observed also correctly that other policies were crucial. These include domestic free markets and privatization, macroeconomic stability, investments in education and health, and democratic institutions that sustain the rule of law.

Zedillo described as "globaphobes" the unholy coalition of interest groups that now campaigns actively against free trade and globalization. These groups, which disrupted the recent meetings of the World Trade Organization in Seattle, include labor unions in rich countries, environmental crazies, and modern-day communists and fascists. He particularly criticized the growing attacks on free trade under the banners of labor standards and environmental protection.

Poor, low-wage countries can compete particularly well internationally in the export of goods that require a lot of unskilled labor. If rich countries force poor countries to provide U.S.-style wages and working conditions, then the poor countries will be much less able to compete and will therefore be denied a means to grow and eventually attain U.S.-style wages.

SOFT TALK. International cooperation on environmental regulation is sometimes reasonable, but that's no reason to restrict international trade. If anything, the growth induced by expanded trade tends to generate structural and policy changes that increase the protection of the environment.

In contrast to Zedillo's tough talk about globaphobes, Clinton's speech pandered to these groups: "We don't have very well-developed institutions for dealing with the social issues, the environmental issues, the labor issues...that's why people are in the streets; they don't have any place to come in and say, O.K., here's what I think...." Since U.S. labor unions and environmental activists are not lacking in voice, Clinton must have been referring to a lack of representation for the communists and fascists.

On a serious note, the networking that goes on in the halls does seem to work. I learned in the lounge that, despite mediocre credentials, the German bureaucrat Caio W. Koch-Weiser continues to be a strong candidate to replace Michael Camdessus as managing director of the International Monetary Fund. A reason is that no one outside France wants another Frenchman. Mervyn King, deputy governor of the Bank of England, would be a great choice, but how can an Englishman be chosen when Britain is reasonably hesitant about joining Euroland? Anyway, given the doubtful value of the IMF, it might be best to install a mediocre leader who would not bolster the institution's power.

I did see a lot of celebrities in Davos. The meeting had more than 40 presidents or prime ministers, not to mention some really important people; such as Bill Gates, Michael Dell, and the recent Nobel laureate in Economics, Bob Mundell. I had to conclude, however, that I lacked the Davos spirit, because I rapidly lost interest in country leaders, not to mention lowly U.S. Senators, or governors, or mere finance ministers, or central-bank heads.

One thing that remained unclear was the purpose of the World Economic Forum. Businesses, who pay the freight, send representatives to see, and perhaps influence, the many politicians who attend. The politicians come mostly because they want to talk to other politicians. Of course, the politicians also appreciate the presence of the many journalists. Academics come as well, because they like to rub elbows with celebrities and because they enjoy expense-paid vacations in pleasant places. (The Saturday night soiree was particularly notable.) The presence of the academics seems intended to allow the politicians and journalists to pretend that they are participating in scholarly interaction. However, very little of the World Economic Forum involves serious scholarship. For me, the celebrity thing and the pleasantness of Davos were not enough to compensate for the long journey (especially since Swissair delivered my luggage 12 hours late). Even the skiing was bad in the heavy, wet snow. So next January I'm going to Utah.

ert J. Barro is a professor of economics at Harvard University and a senior fellow of the Hoover Institution (barroweek@harvard.edu).

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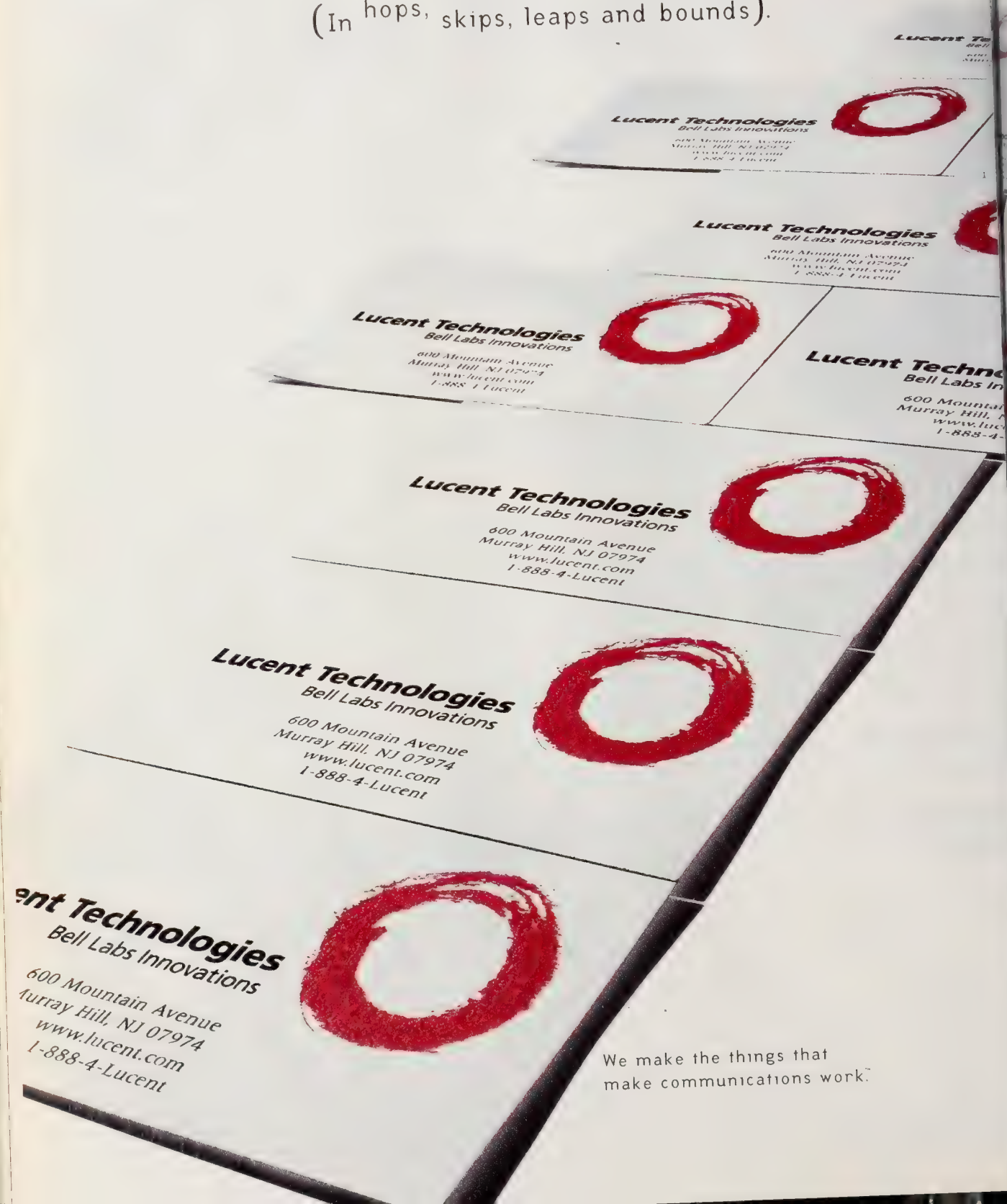

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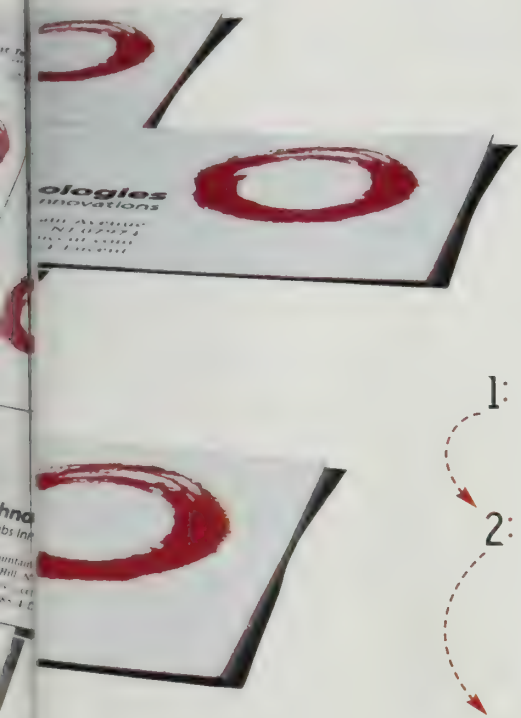

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BY GENE KORETZ

BEATING THE FOOTBALL ODDS

Being a contrarian might help

Among the Super Bowl's distinctions is that it inspires more betting than any other single U.S. sports event. According to industry estimates, small and high rollers wagered close to $100 million in Las Vegas this year. Add the bets made legally and illegally in other venues around the country, and the total could well exceed $1 billion.

While that's small potatoes compared with the daily action on U.S. stock ex-

THE SUPER BOWL: *Betting galore*

changes, there are enough parallels between football betting and stock investing to pique economists' curiosity. And a recent article in the *Journal of Business* by Christopher Avery of Harvard University and Judith A. Chevalier of the University of Chicago poses a question about the football-betting market that is often asked about the stock market—whether it is efficient.

According to efficient-market theory, stock price movements instantly reflect all relevant information and are thus essentially random and unpredictable. (Indeed, stock market investors constantly look for minor inefficiencies, such as the so-called January effect, which they try to profit from.) Instead of prices, Avery and Chevalier apply efficiency tests to movements in point spreads on professional football games.

Point spreads are set by Las Vegas bookmakers when the betting begins a week before each game. A spread adds points to one team's final score for the purposes of determining a winning bet—so if you bet on a team favored by 7 points, and it loses by 6, for example, you still win. The casinos take a 5% fee out of the betting total and try to maintain a spread that causes similar amounts to be bet on both teams. Thus, the spreads are often changed as bets come in during the week in order to balance out the betting—or to reflect new information such as a player's injury.

If the football-betting market is efficient, such changes should be essentially random. Analyzing Las Vegas betting data from 2,300 games from 1983 to 1994, however, the authors identified several factors that enabled them to predict the direction of spread movements in advance.

One is the published opinions of sportswriters and other experts, who apparently influence the betting public even though their predictions are often off base. Others are the teams' records in recent weeks (the so-called hot-hand bias), and prestige variables, such as the fact that one of the teams previously made it to the playoffs.

Not only do these factors tend to foreshadow point-spread changes, but the analysis indicates that such changes are usually misguided—moving the spread farther from the final score than they were originally. In other words, bettors seem to act more out of sentiment than reason.

All this suggests that it's possible to make some money by adopting a contrarian strategy—that is, waiting till the last minute and then betting against point-spread shifts. But the authors find that such a strategy would be only marginally profitable after accounting for the casinos' fee. In sum, the football-betting market appears to be inefficient, but not enough so for investors to capitalize big on its inefficiencies.

HIGH-TECH TOOLS CAN BE FUN

And economists show the way

Few doubt the productivity-enhancing impact of high technology, but in some cases it may have lessened the productivity of—guess whom?—economists. So concludes a study by Daniel S. Hamermesh of the University of Texas and Sharon M. Oster of Yale University.

Until recently, it was quite costly to communicate with distant collaborators on scholarly projects. In light of that cost, the researchers figured that economists would only work with distant colleagues if the published outcome were likely to be highly productive—ultimately inspiring more citations in scholarly journals than their other articles.

They also reasoned that the number of distant co-authored articles should have jumped as communication cost phone, fax, and e-mail—plummeted. A the productivity of such projects pro bly declined as well, as the costs of p suing them dropped.

Analyzing the contents of three ma economics journals in the 1970s a 1990s, Hamermesh and Oster did f that the number of long-distance authored articles climbed sharply in t 1990s. Based on the number of sub quent journal citations they inspir however, such articles were far less p ductive than their authors' other ar cles, both in the 1970s and the 1990s.

Noting that distant collaborations ten involve friends, the researchers su gest that technology is functioning a "consumption rather than an inve ment good." In other words, high tech allowing many economists to choose have more fun on the job rather than boost their productivity.

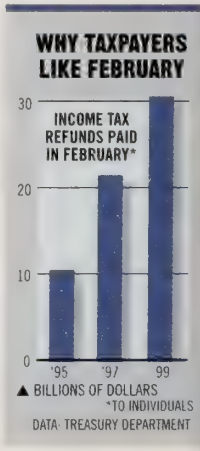
LET THE REFUND SEASON BEGIN

Viagra for a mature expansion?

With electronic filing of tax retur in early January up 27% over la year's pace, the stage is set for a hef near-term pickup in refunds. Taxpaye expecting refunds tend to file early, a economist William V. Sullivan Jr. of Mo gan Stanley Dean Witter notes th February and March have been a counting for a rising share of the ann al February-May refund surge.

The amount of the seasonal refund p disbursed in the final months of the fir quarter has jumped from 35% in 19 to about 50%—even as the size of the p has grown. Given last year's rise in pe sonal income, Sullivan figures individu tax refunds in February and March cou come in as much as $10 billion over la year's tally (which exceeded the 1998 level by some $8 billion).

Last year, he observes, a surge in refunds sparked strong gains in personal spending in both February and March, adding zip to the first quarter's growth rate. "There's every reason to believe it will happen again," he says.



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AMES C. COOPER & KATHLEEN MADIGAN

NOTHER HIKE DONE HOW MANY MORE TO GO?

terest rates may need to be much higher to curb demand

U.S. ECONOMY How do you lasso a runaway New Economy? The old-fash-d way: with higher interest rates. But in light of e eye-popping new data, a more disturbing question merging: Just how high will rates have to go?

he stunning 5.7% and 5.8% growth rates for real ss domestic product in 1999's third and fourth quar-, respectively, clearly heighten the risk that the S. economy is overheating. Now there's new evi-ce that the costs of both production materials and or are beginning to pick up (charts), and that infla-n itself is creeping higher, based on an important e index in the GDP data (page 42).

All this is why the Federal Reserve raised two key interest rates by a quarter-point on Feb. 2. The federal funds rate rose to 5.75% and the discount rate to 5.25%. Wall Street has already built another quarter-point increase into its expectations, as soon as the Fed's Mar. 21 meeting, and many economists expect even more hikes after that.

ndeed, the Fed's statement slanted policy toward the ks of "heightened inflation pressures in the foresee-e future," instead of taking a neutral position, despite ellent productivity growth. Also, keep in mind that icy is now only a quarter-point tighter than it was ore the Fed's emergency rate cuts totaling 0.75 per-tage point during 1998's market turmoil.

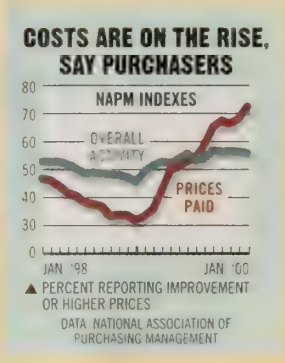
TURE POLICY DECISIONS, though, will be com-ated by the effect of technology. Apart from inflation rries, interest rates should be higher in an economy ere technology has significantly lifted both the rate return to capital and the risk associated with that re-n. Real, or inflation-adjusted, interest rates for long-m corporate debt now are a full percentage point her than two years ago. But that rise has not slowed economy yet.

Undoubtedly, technology has been a boon for this gest of all U.S. expansions (page 99). But financial nditions in both the credit and equity markets are too ommodative to prevent excessively strong demand—t is, demand growth beyond the accepted noninfla-nary limit of 3%-3¼%.

That's because there has never been a business cycle in which so much excess demand has been generated by increased stock market gains, powered mainly by technological innovation. Households are the main beneficiaries of those newfound riches. And Fed Chairman Alan Greenspan has estimated that wealth gains have accounted for as much as a fourth of the economy's 4.3% average annual growth in the past three years.

The wealth effect was easy to see in the latest GDP report. Real consumer spending last quarter posted another huge advance of 5.3%. During the entire year, outlays rose 5.4%—accounting for 3.5 points of the economy's 4% growth—while income grew only 3.7%. Wealth gains bridged that gap. Unless, or until, the stock market flattens out, consumers will remain the locomotive of this speeding economy.

The Fed can at least take comfort that housing, which declined in both the third and fourth quarters, is showing the effects of higher mortgage rates. But it's a slow ebb. Unusually mild December weather heated up the month's new-home sales and overall construction outlays. The January data should look much chillier, though.



Another source of comfort: Some precautionary Y2K inventory building and spending effects appear to have distorted growth during the last quarter, as did a one-time surge in federal government outlays that added nearly a point to the quarter's growth rate. Outlays for equipment and software slowed sharply, likely reflecting some temporary, wait-and-see cutbacks in tech investment, but they may pick up again in the first quarter. Also, the pickup in inventory growth was not especially large, given the very low level of stockpiles relative to demand. On balance, any post-Y2K impact on first-quarter GDP should be small.

INDEED, FIRST-QUARTER GROWTH is off to a solid start. Durable-goods orders jumped sharply in December, and the order backlog is growing rapidly. In January, motor vehicle sales were spectacular and the nation's purchasing managers reported good industrial growth. But they also noted a continued acceleration in the prices they pay for materials. The

purchasers' price index rose close to a five-year high.

Businesses aren't just paying more for materials, however. The employment cost index (ECI), which covers wages, salaries, and benefits, rose 1.1% in the fourth quarter vs. the third, well above expectations. After last year's slowdown, overall labor costs are speeding up again in the face of ever-tighter labor markets. In the most recent three quarters, the ECI has increased at an annual rate of 4.1%, the fastest in any such period since 1991.

Although wage growth remained fairly steady, the fourth-quarter rise reflected an acceleration in benefits, mainly health care. Benefit costs rose 1.3%, the largest quarterly jump in nearly seven years. Also, in June, the Labor Dept. will add data on hiring and referral bonuses to better reflect the compensation packages offered to workers. That move will only add to the upward pressure on the ECI. Labor is also looking into adding stock options, which are surely boosting labor costs, to the ECI. A survey by consulting firm Watson Wyatt Worldwide shows that 19% of employees were eligible for options in 1999, up sharply from 12% in 1998.

IN ADDITION, a hint that inflation itself has bottomed out can be found in the price index for consumer spending in the GDP report. Greenspan said last year that the index was a "far superior measure of true underlying inflation" than the consumer price index. One reason is that an ongoing series of adjustments to CPI—without adjusting past data—has imparte downward bias to the CPI trend, making it difficul spot a turning point if inflation rises.

Based on Greenspan's preferred measure, consumer inflation last quarter, excluding energy and food, rose at an annual rate of 2.2%, the largest quarterly rise in 4½ years. Compared with year-ago levels, this core price index rose 1.5% at yearend, but it bottomed out at 1.2% in the second quarter of 1998, while the core CPI continues to head down (chart). If inflation is crawling higher beca demand is outpacing the economy's ability to meet then price increases will continue to pick up until economy slows substantially.

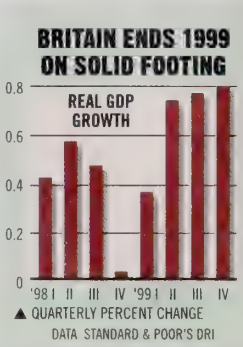
Although the best news on inflation may have pass any uptick should be slow. The purchasers, for examp noted difficulty in raising their product prices. I monetary policy conducted at a leisurely pace co be good and bad. Gentle inflation may obviate the ne for any large hikes in rates. But a series of small qu ter-point moves would be like water torture for markets—inflicting pain drop by agonizing drop.

BRITAIN

GIRDING FOR A TOUGH RATE REGIMEN

Britain's economy is enjoying its longest expansion in the postwar era, and now even the desultory manufacturing sector is showing some momentum.

Real gross domestic product grew 0.8% from the third quarter to the fourth (chart). Construction, services, and manufacturing all contributed to the fourth-quarter advance, which was the 30th consecutive rise in output.



More important, other data suggest that the gains will continue. The Confederation of British Industry's January survey showed improvement in orders, employment, and output. And the purchasing managers' indexes for manufacturing and construction also showed increased activity in January.

Robust growth whittled the jobless rate down to a 20-year low of 4% in December. But Britain's tighter job markets come at a time when productivity is lagging behind the rest of the major industrial nations, according to the government. And that combination of weak productivity growth and tighter labor markets is why inflation remains a vital concern to the Bank of England, even though core retail prices, which exclude mortgage costs and some taxes, rose just 1.8% for all of 1999, down from a 2% pace in 1998.

The BOE believes that future inflation news will show growing cost pressures. That's why the central bank has already started to tighten monetary policy. The BOE hiked its repurchase rate by a quarter point, to 5.75%, on Jan. 13, the third move in five months.

Moreover, the minutes of the meeting stated that increased consumer borrowing and wealth gains from both the stock market and home prices "would tend to support robust consumption growth." That, in turn, "would put upward pressure on inflation in the future," even if productivity picks up. That clear warning has caused private economists to expect very aggressive tightening by the BOE, including a possible half-point hike in the repo rate in February. And some even expect hikes totaling a full percentage point in coming months.

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PRIVACY: OUTRAGE ON THE WEB

A lawsuit against DoubleClick may be just the start of a backlash

For DoubleClick Inc., a hot Internet advertising company, things have suddenly gotten a little too warm. On Jan. 27, Harriet Judnick, a Marin County (Calif.) administrative assistant, filed a lawsuit against the company alleging violation of privacy rights and deceptive business practices. It's a case of the mouse that roared, and it signals how ordinary consumers are getting wise to the intricate workings of online marketers and the lack of privacy on the Web.

DoubleClick is the top ad-server company on the Web. Its computers insert banner ads and other promotional messages on about 1,500 Web sites. Those messages can be precisely aimed at the most likely customers, thanks to little text files called cookies, which allow DoubleClick to track what people are looking at and build detailed profiles of them—about 100 million profiles to date. These profiles show how Web surfers—who are identified only by their cookies—move around among sites, what books and CDs they buy, what places they spend the most time in.

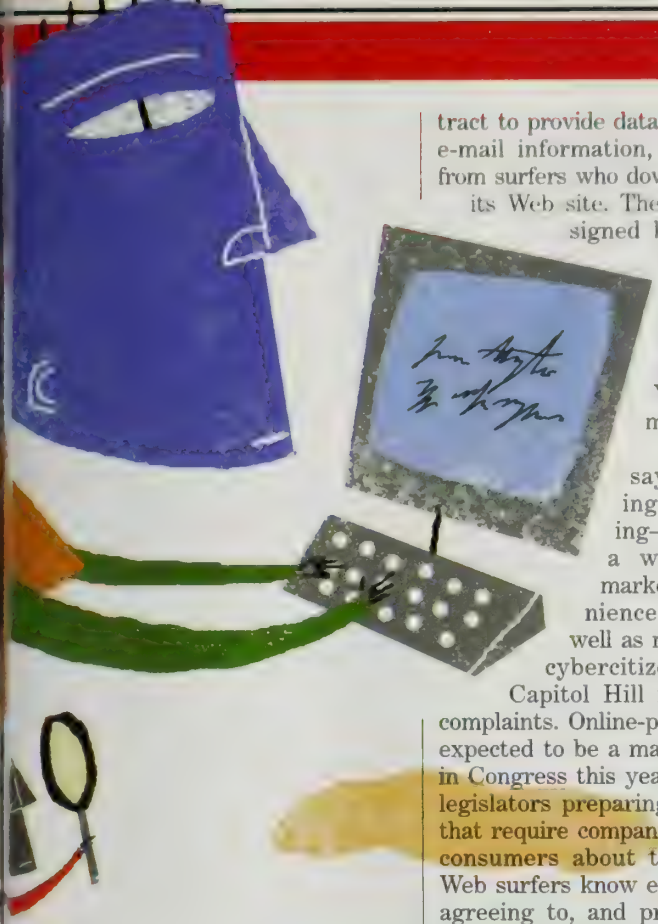
What prompted Judnick to call a lawyer was DoubleClick's latest marketing tour de force: It quietly reversed an earlier policy of providing only anonymous data about Web surfers to marketers and last fall began combining its online profiles with information from direct mailers and others that help determine the actual identity of the Web surfer. In November, DoubleClick paid $1.7 billion for Abacus Direct Corp., a data-warehouse company that has records of consumers' catalog purchases, including name and address data. It has also begun pulling in similar personal data from Web partners. The resu[illegible] DoubleClick not only knows where y[illegible] go online and what you do there b[illegible] also who you are, where you live, a[illegible] your phone number. This is nirvana f[illegible] direct marketers, but it gives Judni[illegible] the creeps. She says she got a stream [illegible] unsolicited e-mails from insurers, lo[illegible] companies, and other firms after she [illegible] cently looked up medical-insurance i[illegible] formation online.

WHAT POLICY? Privacy advocates s[illegible] the allegations in the DoubleClick su[illegible] are just one sign of how the Interne[illegible] data-grabbers routinely go too far. T[illegible] advocates concede that consumers wi[illegible] ingly give up information about ther[illegible] selves when they register at a site b[illegible] they insist that most surfers have n[illegible] understood how a little bit of data c[illegible] turn into a big invasion of priv[illegible] cy. Another issue: Even whe[illegible] sites have strong privacy policie[illegible] they are often overlooked. Th[illegible] Health Privacy Project [illegible] Georgetown University released [illegible] study on Feb. 1 showing th[illegible] many online health sites don't fo[illegible] low their own privacy policies—[illegible] and in some cases share healt[illegible] information about visitors wit[illegible] their business partners.

Internet companies have ever[illegible] incentive to gather as much cu[illegible]

TAKING ACTION

DoubleClick's mixing of Web profiles with purchase data, names, and addresses got Judnick going



ner data as they can—and few rea-
ıs to stop. Indeed, integral to the
siness plans of many Web companies
he notion that they can reach clear-
identified individuals rather than an
ıdience." Advertising agencies say
ey are willing to pay a premium of
% to 20% for such targeted adver-
ing. "The Internet is the first medi-
. that offers advertis-
: the ability to speak
your customers,"
rs Susan Nathan, se-
r vice-president at
agency McCann-Er-
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it is to do that."
A suit filed against
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akes educational
leos, sued the por-
in December, seek-
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billion for allegedly
t living up to a contract to provide data, including customer e-mail information, that Yahoo culled from surfers who downloaded video from its Web site. The contract had been signed between Universal Image Inc. and Broadcast.com Inc. before Broadcast.com was acquired by Yahoo. Yahoo declines comment on the case.

Online marketers say the data-gathering is nonthreatening—that it is merely a way of fine-tuning marketing for the convenience of consumers as well as marketers. But with cybercitizens up in arms, Capitol Hill is listening to the complaints. Online-privacy legislation is expected to be a major bipartisan issue in Congress this year, with at least five legislators preparing to introduce bills that require companies to better inform consumers about their practices, let Web surfers know exactly what they're agreeing to, and provide enforcement if companies drop the ball. Several states are also taking legislative and enforcement initiatives. "This issue has gone off the Richter scale in terms of public sensitivity," says Senator Ron Wyden (D-Ore.)

Judnick is representative of the breed of Netizens who just want to be left alone. Her suit contends that DoubleClick, with the new Abacus data, is using personal information without the knowing consent of Internet users. "I didn't feel like my information should be sold," Judnick says. DoubleClick says its policy has always been to inform online users and give them the option to opt out. "If we have personally identifiable information, it must be true that you have been given notice, and you have chosen not to opt out," says Jonathan Shapiro, DoubleClick's vice-president for business development.

But privacy policies can be deceptive, says privacy advocate Richard M. Smith, who has been documenting online privacy breaches (page 40). He has charged Amazon.com Inc. with gathering more personal information about customers than consumers would expect if they read its privacy policy. "The more experience we all have with the inadequacy of these policies, the more sense there will be to enact some protections," says David Sobel, general counsel at the Electronic Privacy Information Center in Washington.

LITTLE WARNING. Net companies insist that they are capable of regulating themselves and that it would be self-defeating to abuse customer privacy: It's in their best interest to keep customers happy and surfing. And so far, regulators have taken a hands-off approach. While the Federal Trade Commission has watched online privacy closely and issued rules governing the online privacy of children in October, it has so far declined to establish any rules regarding adults. In November, the FTC concluded a privacy workshop with promises from the 10 leading ad-services companies to come up with voluntary guidelines. Since then, the companies have not put anything forward.

Privacy advocates maintain that consumers are not adequately warned about how the information they volunteer, or that they allow a specific site access to, will be used. In her suit, Judnick is asking the court to force DoubleClick to request permission before it tracks consumers' online behavior. She is also asking that the company be forced to destroy all data it acquired without users' consent.

As the privacy issue gets more attention, momentum is building for government action.

DISSECTING ONLINE PRIVACY POLICIES

WHAT THEY SAY...	...AND WHAT THAT CAN MEAN
▶ *We could exchange your name with another company whose products and services interest you*	▶ The site could be selling your information to anyone—other sites, online advertisers, or direct marketers
▶ *We may use the information you give or we collect about your online behavior to enhance your experience*	▶ The site could be sharing or selling that information with all kinds of marketers
▶ *The seal on this site means we are part of a self-regulating privacy organization*	▶ Membership may no longer be current, and there is no enforcement of the rules
▶ *We automatically track information based on your behavior on our site*	▶ The site may record what you looked at, what you purchased, and where you live or work
▶ *We use the information internally*	▶ You may never get to see the data or correct errors

States including New York and Hawaii have pending legislation, and California, Maryland, and Virginia are expected to follow. In a case that could be a taste of things to come, the New York State Attorney General reached settlements with Chase Manhattan Bank and Sony Music Entertainment Inc.'s online service InfoBeat to curtail information-sharing practices with outside partners. The office says Chase was violating its own privacy policy, though the bank contends it didn't.

In this election year, many federal legislators are taking a range of initiatives. Oregon's Wyden and Senator Conrad Burns (R-Mont.) are co-sponsoring a bill that gives consumers the chance to block the collection of information and the right to access any data that has been gathered. A bill fr Senator Patrick J. Leahy (D-Vt.) sters the ability of consumers to out and tackles government intrus into personal privacy. This year's ca paign slogan could be: It's online vacy, stupid.

By Heather Green in New York, Norm Alster in Boston and Amy rus and Catherine Yang in Washing

THE PRIVACY WAR OF RICHARD SMITH

Richard M. Smith knows the data snatchers are out there. From the third-floor aerie of his rambling Victorian-style house in the tony Boston suburb of Brookline, Mass., this virtual sleuth spends untold hours, surrounded by his toy robot collection, tapping on his trusty laptop. His mission: to track the efforts of software companies and online services to collect information about what individual Web surfers are doing.

SMITH: *Dot.coms don't want to be on his list*

Smith's avocation as a digital bloodhound started last year, when he heard that Intel Corp. was encoding a unique serial number into every new Pentium III microprocessor. He wondered whether other hardware-identifying numbers were being copied onto documents created with Microsoft Word. A veteran programmer and co-founder of Phar Lap Software Inc., which makes "tools" for software writers, Smith used a "hex dumper"—a program that shows the actual bytes of information in a computer file—to inspect a Word file.

He discovered that the word processing program also contained an electronic marker that was "stamped" onto every document he created. That made it possible for somebody to unlock the code—a company eager to uncover a whistleblower, for instance—to identify the source of any Word document. Microsoft has since changed its system. Among other online privacy violations, Smith also discovered that RealNetworks Inc. collected computer ID numbers from Web surfers who downloaded its RealJukebox software to hear CDs.

Last fall, Smith quit his job at Phar Lap to take a sabbatical and devote himself full-time to privacy issues. He says he's alarmed by the steady erosion of personal privacy online and wants to raise consumer awareness of the threat. "People don't understand that every little move they make can be monitored," he says. "My role is to shine a light on [privacy abuses], and then we can have a conversation about what to do about it."

NAILING AMAZON. Smith, 46, has become a well-regarded expert in the field. Federal regulators ask for briefings on Web bugs and other online monitoring gizmos. Reporters and others call or e-mail regularly with tips on alleged cyber-snooping. And e-commerce companies shudder as he exposes the methods they use to track unsuspecting consumers.

In December, for example, he charged that Internet-monitoring software created by an Amazon.com Inc. subsidiary gathered personal information about customers without their knowledge. Says David Medine, an associate director at the Federal Trade Commission: "The publicity sends a message: 'You don't want to be next on Richard Smith's list.' Everyone takes him seriously."

Even Microsoft programmers praise his technical savvy. "He eats and breathes bits and bytes of data," says Richard Purcell, Microsoft's director of corporate privacy. "We respect the work he does." So much so that last June, Microsoft brought Smith to its campus in Redmond, Wash., to discuss the use of software user ID numbers.

Smith's latest finding: On a tip from a Seattle software developer, he determined that Sprint cell phones that offer wireless Web connections transmit a user's phone number to whatever sites they access. "It's a marketer's dream," says Smith. "Once Web sites realize this, they'll have salespeople call you up on your cellphone." The company defends the feature, saying it's for the user's convenience—allowing callers to quickly reconnect to a site if they are disconnnected—and notes that Sprint's service agreements mention the feature. Besides, insists John Yuzdepski, a Sprint vice-president, Sprint's Web service providers are "very secure sites that know how to deal with the privacy issue." Maybe so. But with Smith on the case, they better be.

By Amy Borrus in Brookline, Mass.

inesses encounter challenges of all shapes and sizes. To be successful you have to adapt. At Wausau, our experience and
ibility enable us to handle your toughest tasks. And our accommodating professionals always come through in a pinch.
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THE ECONOMY

INFLATION: THE STORM AHEAD?

Productivity gains or n prices are heading higher–and the Fed ha its work cut out for it

Now the Federal Reserve me business. Sure, the central b raised rates three times betw June and December of last y But those were simply making up the hurried cuts made in late 1998 blunt the effects of the global meltdo in Asia, Latin America, and Russia, the Feb. 2 quarter-point move is a h of a different color. This time, the sees not just the specter of inflation some actual evidence. And, while ove inflation is still relatively low, econom expect the Fed to keep hiking until sure the menace has retreated. "T risks are weighted mainly toward co tions that may generate heightened flation pressures in the foreseeable ture," the Fed said as it announced rate increase.

Finally, it seems, fast growth, low employment, and demand that exce supply are doing what they usually d producing higher prices. Through much the expansion, rising productivity a falling prices of imports have kept in tion in check. But now prices are act up—or, in many cases, have stopp falling. So the U.S. may no longer pend on cheap oil, constantly falling co puter prices, and commodity deflati Today, the rest of the globe is rebou ing, and as a result, so are prices everything from copper to semicond tors to clothing.

MILES TO GO. At the same time, the fects of the tightest labor market in years are also beginning to be felt. In fourth quarter, the employment cost dex was up 1.1%, well above consens forecasts of 0.8%. "The salad days of flation are over," says Mark M. Zar chief economist at RFA/Dismal

PRESSURE POINTS

Annualized inflation rate from third to fourth quarter, 1999, for key areas of the economy

DATA: BUREAU OF ECONOMIC ANALYSIS
*SINGLE FAMILY HOMES

ences Inc. in West Chester, Pa. "It's coming increasingly clear that deceleration is over as we see accelerating ns of inflation."

As always, what Fed Chairman Alan eenspan is thinking is paramount. In past several years, he has become a n believer in the power of the New onomy to deliver relatively rapid wth without sparking inflation. But has always maintained that, despite New Economy's productivity benefits, re are limits to safe growth. Clearly, 5.8% increase in gross domestic prod racked up in the fourth quarter exds that rate.

Slowing the economy now will take ne doing. "If the Fed is trying to get the Shangri-la, a soft landing, it's going take several more rounds of hikes," edicts Ken Goldstein, an economist h the Conference Board, which retly reported that consumer confidence at a record high. "This economic exnsion is not an old man coughing and eezing to the finish line. It's more like narathon runner sprinting with severmore miles to go."

Just look at recent evidence:

- January auto sales, released on Feb. indicated that on an annualized basis, industry would break the record set 1999, selling in 2000 as many as 17.7 llion units.
- On Feb. 1, the National Association Purchasing Management said its price dex moved from 68.3 to 72.6, the high level since April, 1995.
- On Feb. 2, the Commerce Dept. reted that new home sales in December se more than expected, capping off a ond record year in a row.
- On Jan. 31, Commerce said Decemr consumer spending grew at a 0.8% e, the fastest in four months.

Meanwhile, the fourth quarter also w prices inching up on a variety of oducts. The price deflator component e GDP showed a fourth-quarter annuald inflation rate of 2.2%, including gains everything from clothing to health re to housing to computer software.

And the Fed is growing more concerned about the prospect of higher wages. Indeed, while the employment cost index for 1999 rose 3.4%, the same as in 1998, a 1.3% increase in benefits costs resulted in a higher-than-expected fourth-quarter increase in the ECI of 1.1%. That was driven mostly by higher health-care costs, especially from increased use of expensive new drugs. But the cost of fringe benefits, such as paid vacations and retention bonuses, also jumped to their highest level in seven years last quarter. "Labor costs are at the top of the list in terms of what Greenspan is looking at," says James F. O'Sullivan, an economist at J.P. Morgan & Co. "But does that mean it translates into inflation?...The message [in the GDP deflator] is that it probably is starting to come through."

OUT OF OPTIONS. Until now, the economy has been able to absorb the hikes—even the tripling in oil prices between late 1998 and January 2000. As the price of oil flirted with $30 a barrel, some pass-along seemed inevitable. Wholesale home-heating-oil prices, for example, rose a staggering 60% in January alone. That's having a crushing impact in the Northeast, which is far more dependent on heating oil than other regions of the country.

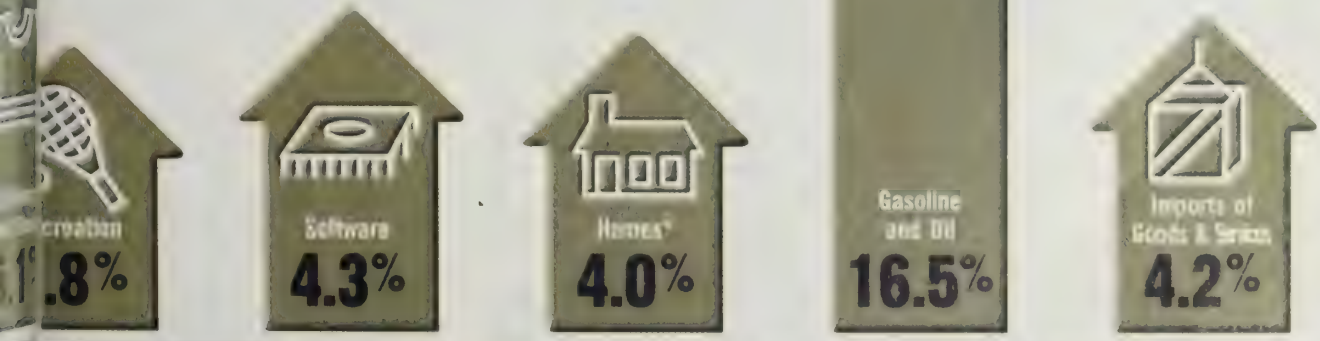
The effect on the transportation sector is massive. Airline earnings are off, and FedEx Corp. and most of the major airlines are adding a surcharge to their prices. Southwest Airlines Co., for example, recently increased its one-way fares by $2 to $4 to help offset rising fuel prices, which are expected to increase $75 million in the first quarter. Still, Chief Financial Officer Gary C. Kelly says the ticket-price increase will likely cover only $10 million to $20 million of the jump in fuel prices.

Even the most efficient companies are running out of ways to avoid raising prices. Take Wal-Mart Stores Inc., which managed to cut prices by $10 billion in its last fiscal year ended Jan. 31. This year Jay Fitzsimmons, senior vice-president of finance, says he fears rising labor and fuel costs could show up in higher vendors' prices. A weaker dollar will also raise the cost of imports from Asia. "Our goal is to at least match the $10 billion in price rollbacks [this fiscal year]," he says. "However, it could be more difficult given the circumstances."

Higher raw-materials costs—including hikes in copper, aluminum, and steel—are taking a toll as well. Baldor Electric Co., an electric-motor maker in Fort Smith, Ark., has seen a 20% jump in copper and aluminum prices over the past year, while steel is up 2% to 3%. So far, the company has been able to offset rising wages with productivity improvements, but increases in raw-material prices can't be covered that way, says Chief Executive John A. McFarland. McFarland predicts that later this year his company will have to pass some of its higher commodity costs on to customers. That would be the first general price hike in five years.

That worries the Fed. And the market now seems to believe that rates could be more than 6% by the end of the year. Will that be enough to slow the runaway economy? Some economists think so and expect the consumer price index to settle back down to 2% by yearend from 2.7% in 1999. But for those looking for tell-tale signs of inflation slowly creeping into the economy, the CPI was at 1.6% in 1998.

By Stephanie Anderson Forest in Dallas, with Wendy Zellner in Dallas, Laura Cohn in Washington, and bureau reports



COMMENTARY

By Howard Gleckman

THE SURPLUS: NOW YOU SEE IT...

On Jan. 27, the Congressional Budget Office announced that the cumulative federal surplus over the next decade could top $1.85 trillion. For a nation that has been battling over deficits for nearly 20 years—and over how to spend the surplus for the past two—such numbers represent an almost unimaginable and irresistible opportunity. Not surprisingly, everyone—from President Clinton, to the Republican-dominated Congress, to every Presidential candidate—is wasting no time figuring out how to spend the windfall.

Maybe they'll get the chance. But if Congress follows recent practice, those trillions may never appear in the first place. "By the time you account for all the things virtually certain to happen," says James M. Horney, a fiscal expert at the Center on Budget & Policy Priorities, "there isn't much left."

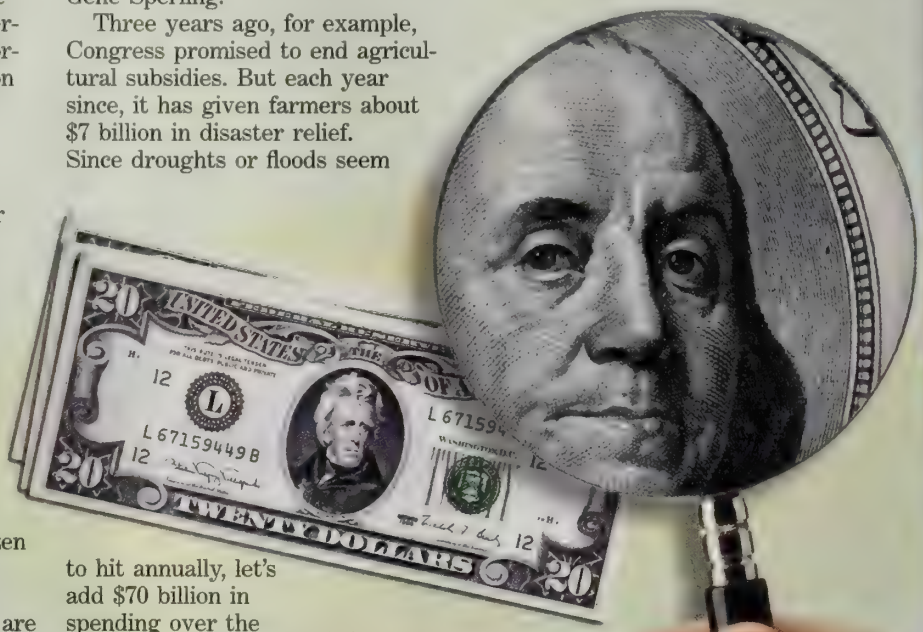
How much? The projected surplus, BUSINESS WEEK calculates, could be more like $300 billion over the next 10 years. And that's before a single new tax cut or spending program has been enacted.

GETTING SERIOUS. How does $1.85 trillion disappear so fast? For starters, knock off $1 trillion by getting serious about how Congress is likely to spend money over the next decade. CBO's optimistic estimate assumes that non-Social Security and Medicare spending will be frozen at current levels for 10 years. But that would only happen if current spending caps remain in place and are actually enforced. The caps are set to expire after 2002, and they've been widely ignored in recent years. Last year, they were exceeded by $30 billion for exceptions such as aid for Kosovo and disaster relief.

A more likely scenario: So-called discretionary spending rises with inflation. That, says the CBO, reduces the 10-year surplus to $838 billion. And the White House figures it would come in even lower—about $750 billion. Says former CBO Director Robert D. Reischauer: "It's not realistic to expect Congress and the President to keep on a fiscal hair shirt in the face of budget surpluses." Especially in a year when a new President, 435 members of the House, and 33 senators will be elected, there will be little restraint when it comes to vote-getting spending ideas.

President Clinton won't be thinking about spending caps when he releases his final budget on Feb. 7. His recent State of the Union address included scores of new tax incentives and spending initiatives—for everything from health care to education. But even if his proposals are DOA in Congress, spending is likely to be higher than the CBO has optimistically forecast. "This is the new rosy scenario," says top White House economic aide Gene Sperling.

Three years ago, for example, Congress promised to end agricultural subsidies. But each year since, it has given farmers about $7 billion in disaster relief. Since droughts or floods seem to hit annually, let's add $70 billion in spending over the next decade.



If Congress remains true to form, the surplus may not show up in the first place

Then, there are special-interest tax breaks, fondly known in Washington as "extenders." These are credits for everything from high-tech research to low-income housing that have been reauthorized every couple of years since 1986. With no reason for Congress to suddenly kill them, knock another $50 billion off the surplus.

Hidden in the black ink is an additional $40 billion a year that is already spoken for, although nobody wants to admit it. That's money earmarked for the retirement of federal civilian employees and military personnel. If you think that Congress will slash military pensions to pay for new spending or tax cuts, then count it in the available surplus. If not, subtract $400 billion more.

So now we are down to roughly $280 billion. But there is still the proliferation of tax-cut plans to consider. Clinton, who held the line against sweeping ones last year, seems ready to do something limited. His opening bid: $350 billion.

Republican leaders still cling to far

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bigger ideas. On Feb. 2, the House Ways & Means Committee approved a $182 billion marriage penalty and tax-rate relief bill, just the first of many tax cuts GOP lawmakers promise this year. Since Clinton will propose his own version of marriage-penalty relief—at a cost of only about $45 billion—it's a good bet that some compromise is likely. Says Robert Bixby, executive director of the Concord Coalition, a Washington group dedicated to fiscal discipline: "That opens the door to a megadeal between a President who wants more spending and a Congress that wants [big] tax cuts."

SENIOR BENEFITS. Clinton and Congress also both support new drug benefits for seniors. That could cost $10 billion to $40 billion a year, depending on who is covered and how generous the plan is. Then, there is the money that will have to be shifted eventually from the general fund to help make Social Security and Medicare solvent. Although neither fund should go into the red within ten years, money has to be set aside sooner to avoid large tax increases or benefit cuts later. And the costs of many proposals hit the trillion-dollar mark very quickly.

The news is not all bad. Future surpluses could be higher than the CBO projects—if the economy cooperates. After all, muscular growth in both the stock market and the real economy added $500 billion to the forecast. And more of the same could produce even bigger numbers. For example, the CBO estimates that the economy will grow 2.8% annually over the next decade. But 3.3% growth would bring in another half-trillion. Even a bit of inflation could help. If it doesn't tank the economy, higher inflation will produce more tax revenues, dwarfing higher interest costs.

Of course, if the economy sags, those big numbers would evaporate, and the nation might find itself heading toward deficit again. But such hypotheticals are not likely to slow politicians. They have many promises to make—and so little time to run for reelection.

Gleckman covers the federal budget and taxes from Washington.

THE PRIMARIES

CAN THE ESTABLISHMENT STOP McCAIN?

Bush can't afford one false step in South Carolina

REVOLT? *McCain won with every GOP group but the Religious Right*

On Ground Hog Day, the political Establishment woke up to see an unwanted shadow across the future. Power brokers in both the Republican and Democratic parties had marshalled big money, armies of volunteers, and a raft of endorsements to cement the leads of front-runners George W. Bush and Al Gore. They hoped to snuff out the insurgencies of John McCain and Bill Bradley. Instead, McCain scored an upset, taking 49% of the vote, over Bush's 30%. And instead of dealing Bradley a death blow, Vice-President Gore pulled out a middling 52%-to-47% win. Now both upstarts will fight on, igniting a costly and divisive Presidential contest that leaves no room for stately coronations this summer.

ELECTION 2000 THE REPUBLICANS

Bush faces the worse problem. McCain has triggered a populist revolt that has the chance of stopping Bush's juggernaut. According to Granite State exit polls, the Arizona senator crushed the Texas governor among independents, 61% to 19%. But he also won majorities from GOP liberals, conservatives, and moderates, losing to Bush only among voters describing themselves as members of the Religious Right or as "very conservative."

If that dynamic plays out in primaries slated for Feb. 19 in South Carolina and Feb. 22 in Michigan, Bush could be trouble. Conservative South Carolina be critical, and the Bush campaign is pected to work overtime to convince ers that McCain is a closet liberal flip-flops on abortion. "Bush is going go hard negative in South Carolina," s McCain campaign coordinator Jo Weaver. "They'll throw eve thing they have at us."

SWING VOTERS. The Bu camp is doing nothing to d courage this speculation. Aid say that in the Palmetto Sta and beyond, Bush will stre his ties to social conservatives. T game, says former Christian Coaliti Executive Director Randy Tate, is tag McCain as closer to Clinton and t Democrats" than the GOP.

Just one hitch: The harder Bush tac right, the more he irks GOP mai streamers and independents. Indee the same nonaligned, reform-mind voters who gave McCain his surge New Hampshire could loom large South Carolina and elsewhere. T state's open primary permits indies a Democrats to cast ballots for Repub cans. Michigan, despite the pro-Bu exertions of Republican Governor Jo Engler, gives McCain a decent chance

ow do you measure success?

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peel off legions of suburban swing voters and Reagan Democrats.

Other states where McCain's crossover dreams could be tested: Virginia (Feb. 29), an open-primary state with a big cadre of veterans and lots of moderates concentrated in the Northern suburbs; Connecticut; Rhode Island; Ohio; Minnesota; Vermont (Mar. 7)—all states with vibrant independent blocs—and Florida (Mar. 14), where ticket-splitting is practically a pastime. Wisconsin and New Jersey are also havens for switch-hitters, but come too late to offer much help. Insists top Bush strategist Karl Rove: "McCain has little or no infrastructure in the states where he needs to compete."

Indeed, despite his new momentum, McCain still has disadvantages—especially when it comes to money. While the Bush organization raised $69 million (and spent only $37 million) in 1999, McCain is abiding by spending limits and has only $6 million left. The folks who can raise money in a hurry happen to be the same Beltway power brokers that McCain campaigns against. But they don't seem to mind. Tickets for his Feb. 10 fund-raiser at Washington's Willard Hotel, at $500 and $1,000 per person are selling well. "He'll raise a ton of money," says a top Capitol lobbyist. "That populist stuff just rolls off our backs—it's what politicians have to say."

In South Carolina, the Bush camp will work overtime to portray McCain as a closet liberal who flip-flops on abortion

COVER THEIR BETS? Indeed, while McCain pledges in his campaign speeches to "break the grip of the special interests in Washington," enact campaign-finance reform, and attack $150 billion in "corporate welfare," he is not seen as anti-business. He is the doggedly conservative chairman of the Senate Commerce Committee, and his stands on transportation, telecom reform, and Internet taxes fit with many Big Business agendas. "He's definitely a maverick," says health-industry lobbyist Tom Scully. "But I don't think he causes any great fear that he is going to turn the town upside down

Besides, scores of the industry reps who jumped on the Bush bandwagon may now be tempted to get off at next junction and write a check to Cain. "Some guys are going to start ering their bets," says a top small-b ness lobbyist. "We're already seein in donations to House Democratic grou

In the end, McCain's success or ure probably won't rest as much on South Carolina showdown as his ab to keep building momentum while gling the competing interests of all diverse voters rallying to his cause. one thing is certain: The GOP kingm ers who tried to engineer a quick bloodless Bush processional to the n ination have seen their scenario scr bled by a clever pol who is fusing li al and conservative dogma int powerful new formulation.

By Lee Walczak, with Dan Car in Washington and Richard S. D ham in Merrimack, N. H.

NEW HAMPSHIRE, ACCORDING TO BILL

By now, you've heard from nearly everyone among the punditocracy about the meaning of the New Hampshire primary and what it portends for Campaign 2000. But how about the view of the Pol-in-Chief, Bill Clinton?

On Feb. 1, when BUSINESS WEEK talked with the President (page 108), the ballots were still being tallied. But the nation's top political junkie already had strong indications from exit-polling data that Vice-President Al Gore and Senator John McCain (R-Ariz.) were the winners.

Clinton found the similarities between the victors striking. Gore's his man, of course, but he seems awfully fond of McCain, too. "He's a very conservative Republican on most issues, but he has got a couple of progressive stands on tobacco and campaign-finance [reform]," the President mused. "Gore is much more of a New Democrat, who has some liberal and some conservative positions. What they both have in common is, they think for themselves, and they tend to view public service as a [calling] where you're supposed to try to get something done, and not just give a speech."

VICTORIOUS VEEP: *Clinton says Gore and McCain have lots in common*

Is McCain a closet Clintonite? Perhaps, said the President. For starters, he sees some striking similarities to Clinton-Gore economic doctrine in McCain's "save Social Security first" pitch. "He's got it about right," said Clinton. "He and Gore can argue about the details."

Then he added, laughing: "There I go, making McCain visible. McCain did [an] interview in *The New Yorker*, and they said, 'Have you ever made a mistake?' He said, yes, I was wrong about AmeriCorps [the Administration's public-service program for youth]. He said, I didn't trust the sponsors—I guess meaning me—and [the program] turned out to be a really good thing. So I wrote him a note and I said, 'Dear John, thank you for bragging on AmeriCorps. Please hide this note until after the New Hampshire primary.'" Despite the fact that one insurgent won in New Hampshire and the other fell short, the President has divined a clear-cut message from voters. "They want people who understand that this is a job," he said. "We need vision, we need action, we need to be able to put things together. They would like to have less of the partisan rancor that has infected Washington for years. So the message is: Let's keep changing, but let's not give away what brought us to this dance—because it's a pretty good dance."

By Lee Walczak, with Paula Dwyer in Washington

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STORES ARE FULL: *The consumer market still looks promising*

COMPUTERS

PERSONAL COMPUTERS: ARE THE GLORY DAYS OVER?

A fall in business buying hurt Dell–and it looks like a trend

For the past half-decade, there has been one constant in the PC industry: No matter how the fast-changing business battered other players, Dell Computer Corp. kept turning in record-setting revenue and profits growth. That's why Dell's earnings warning on Jan. 26 came as such a shock. The company says that revenue for the quarter that ended on Jan. 28 will come in at about $6.7 billion—$800 million short of analysts' projections. Worse, Chief Financial Officer Thomas J. Meredith advised analysts to slash annual growth estimates to 30%, from more than 40%. "We're trying to set more realistic goals that you can be comfortable we can meet," Meredith told analysts.

What's bugging Dell? Suddenly, the business of selling desktop computers to corporations—Dell's bread and butter is sagging. Prices are creeping downward and demand is soft. Partly, this is short term: After increasing budgets to buy new gear before the Y2K crunch, many companies are now cutting computer budgets. Then there's the long-term trend toward putting tech money into back-office gear to run e-businesses, rather than upgrading desktop systems. "We are very focused on e-commerce," says David L. Johns, chief information officer of Toledo-based Owens Corning. "Our spending on PCs is definitely going down." The share of corporate technology budgets allocated to PCs is expected to fall from 21% in 1997, to 18% this year, says International Data Corp.

Any slowdown in corporate PCs is bound to hit Dell hard. The company receives 40% of revenues from corporate desktops—compared with 21% for Compaq Computer Corp., says Unterberg Towbin analyst James D. Poyr Jr. And given the soft market, Dell w have to work harder to keep its corp rate desktop line growing. This ye unit growth should be just 18%, a revenue growth is expected to be ju 7%. And, with corporations opting f cheaper desktop PCs—used mostly f Web work—IDC analyst Roger L. K figures average pricing will fall 10%.

NO RETREAT. Even Microsoft's new W dows 2000 software, to be unveiled Feb. 17, isn't likely to provide a b pick-me-up, as Windows 95 did fi years ago. "Companies have be through [Windows upgrades] enou times to ask themselves, 'what did really get out of this last time,'" sa Larry Garlick, CEO of software mak Remedy Corp.

Dell is not about to fall back amid t PC pack anytime soon. The Austin-bas company continues to beat its rivals its key markets. Meredith insists t parts shortages and Y2K-related slo down that caused the quarterly shortf are easing. And Dell is zooming pa rivals in all the hottest market se ments, going from 3% to 16% in serve since 1996. Since it got serious abo the consumer market last year—it nally waded into the sub-$1,000 mark toward the end of 1999—it has grabbe 5.2% of the home market. In busine desktops, Dell is the only major play besides Hewlett-Packard making sol profits.

But the fact remains that Dell's pri ciple rivals have moved faster to lesse their reliance on corporate desktops. H has stopped chasing corporate mark share; it's now focusing more on th booming home market. IBM, whose P operation lost $1.5 billion in the pa two years, is focusing more on su plying underlying technologies. An Compaq, beset with losses and la offs from its 1997 Digital Equi ment Corp. acquisition, is showin signs of revival. During Compaq analyst meeting on Jan. 28, CE Michael D. Capellas said 52% of it fourth-quarter revenue came fro such "enterprise computing" sales— vs. 32% from commercial desktop

It's not clear that Dell can mat that. "Dell's excellence at sellin PCs in some ways becomes a liabil ty when the game moves beyon selling PCs," says IDC analyst Ka New game, new pressures.

By Peter Burrows, with burea reports

WITH PC SHIPMENTS FALLING OFF 1999's TORRID PACE.....

	1998	1999	2000*
UNITS	91**	$112**	$132**
GROWTH RATE		23%	18%

AND PRICES CONTINUING TO DROP...

	1998	1999	2000*
AVERAGE PRICE	$1877	$1685	$1543
% DROP		–10.2	–8.4

...2000 MAY BE A TOUGH YEAR FOR PC MAKERS

PC REVENUES	$171***	$189***	$204***
% INCREASE		10.5	7.9

*Projected worldwide desktop, portable and server PCs
**Millions ***Billions SOURCE: INTERNATIONAL DATA CORP

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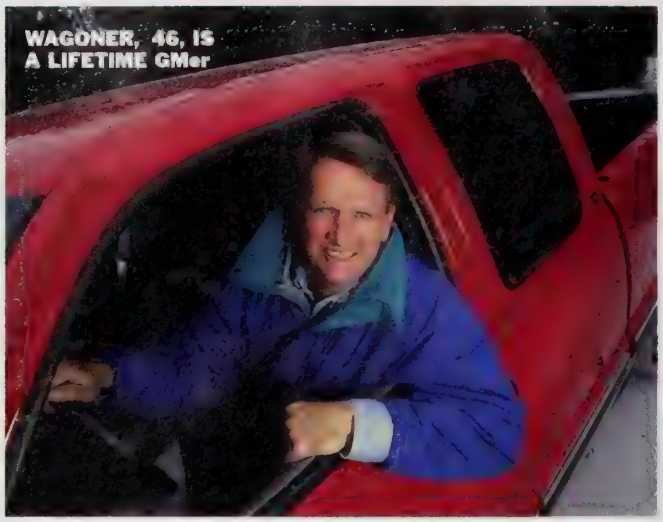

WAGONER, 46, IS A LIFETIME GMer

DETROIT

NO SHARP TURNS AHEAD AT GM

As CEO, Wagoner looks like business as usual

General Motors Corp. shareholders will remember this January. In anticipation of a spin-off of shares in the car giant's fast-growing Hughes Space & Communications business, GM stock gunned it from 70 to 85. But then came the February effect. Late on Feb. 1, the company announced it would indeed spin off 15% of the Hughes shares. The next morning it announced that G. Richard Wagoner Jr., chief operating officer since October, 1998, would succeed John F. Smith Jr. as CEO. GM shares quickly backed off nearly 5%. Not only is Wagoner a signal of more business as usual, but business looks grim: In January, as the U.S. auto industry set another sales record, GM's share dropped to 28.4%, below the disappointing 29.4% level of December and far off the 32% goal the company set in 1998.

There was little doubt at headquarters that Wagoner, a lifetime GMer, was right for the job: "The feeling within the company and with the board is that we have the finest CEO in the entire auto industry right here in Rick Wagoner. So game over," said Smith.

BUMPY ROAD. The Wagoner appointment dashes hopes among some investors that the company would take dramatic action—hiring a dynamic outsider such as former DaimlerChrysler President Thomas Stallkamp. "Rick is a lifetime GM guy," says one investor. Others say the stock's dip reflects heavy arbitrage in various GM shares related to the Hughes deal.

The 46-year-old Wagoner, who takes over June 1, certainly has his work cut out for him. Overseas, GM's Latin American operations and its German Adam Opel unit have been stuck in the red. Back home, inventories of its new full-size pickups are building. The company's stubborn problems: a bland lineup and an inability to react quickly to market shifts. "They just lack products that people want to buy," says one investor.

Wagoner says he will move faster with new design and product decisions. "There's a lot of work going on there," he says. The company is opening a new design studio in California and unfettering its young designers to create hot new models. For proof of progress, Wagoner points to a raft of creative concept vehicles, such as the Chevrolet SSR roadster-truck hybrid and Buick LaCrosse luxury car. And on Jan. 31, Wagoner unveiled plans to build a $558 million state-of-the-art Cadillac plant in Lansing, Mich.

But until it can get its flashy new wheels into showrooms, GM is falling back onto its usual strategy to generate sales: more rebates. The auto maker kicked off the year with $500 discount coupons to millions of potential buyers, after boosting incentive spending in December to $1,881 per vehicle—higher than major rivals and $300 above year-earlier levels. And with a new midsize sport utility due next year, GM may spend more to buoy sales of the aging Chevrolet Blazer, GMC Envoy, and Oldsmobile Bravada. "We'll try to come up with some creative marketing to hold share," says GM North America President Ronald L. Zarrella. "But if we need to discount that vehicle to hold share, we'll do it." That's unlikely to get the Wagoner era off on the right foot with Wall Street. And unfortunately, there are no more prize jewels for the new guy to sell.

By David Welch and Kathleen Kerwin in Detroit

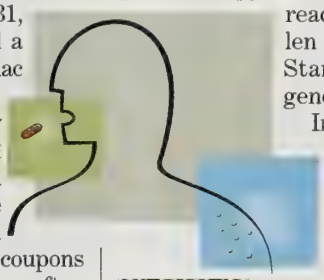
BIOTECH

A SAFETY VALVE FOR OVERDOSES

Gene therapy may benefit from using a "trigger" drug

One of the big obstacles to wi spread use of gene therapy has b lack of a control mechanism t would prevent the body from overdosi Now, an international team of research led by scientists at ARIAD Pharmac ticals Inc. in Cambridge, Mass., may h come up with an answer. In the Feb issue of *Science*, the team reports succ in regulating the production and rele of insulin in diabetic mice through t use of a second, trigger drug that's tak orally. If this new method works in h mans—and tests are still far off—it co mean an end to the multiple daily sulin injections that diabetics need regulate their blood sugar.

SPIN-OFF. But development of a ge regulator could have a more importa benefit: improving the overall safety gene therapy. In September, an 18-ye old patient in a genetic-drug trial di from an overdose, and there have be hundreds of adverse reactions to ge therapies. "We need to be able to tu gene therapy off if a patient has a b reaction to it," says H len M. Blau, director Stanford University gene therapy program.


AUTOMATIC: *Dosage control*

In the experiments d scribed in *Scienc* researchers we able to trigger ar control release of i sulin in mice with companion drug. A ter being injecte with a modified ve sion of the gene that produces insuli the mice began producing insulin in the leg muscles. But the amount of insuli released by the mice's muscles depende on the dose of the drug: The larger th dose, the more insulin. Without the drug which could be given in pill form for hu mans, virtually no insulin was released.

This technology could lead to thera pies that would replace other injectabl medicines—leptin for obesity or endor phins for pain. And the best part? Be cause it's an adaptation of a natural ce lular process, ARIAD researchers believ there will be few side effects.

By Ellen Licking in New Yor

Research engine.

Where is the Internet? In cyberspace? Silicon Valley? Or – as our newly published *Internet Analyser* suggests – increasingly in Europe?

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In Business This Week

EDITED BY MARK FRANKEL

FORD AND UPS DELIVER A DEAL

WILL YOUR NEXT MUSTANG convertible be delivered by a guy in brown? The logistics arm of United Parcel Service on Feb. 2 signed on to revamp Ford's rail and road vehicle-delivery network. The value of the deal was not revealed. The aim, the two companies say, is to reduce bottlenecks and delays, getting cars to their buyers up to 40% faster—and saving Ford millions by cutting the time it has to carry vehicles on its books. UPS Logistics will create a tracking system similar to the one the company uses to trace packages on its trucks and planes. Each car will have a bar-code decal to be scanned at various points between the plant and the consumer, allowing dealers—and ultimately, buyers using the Internet—to follow their car's progress from the factory to their garage.

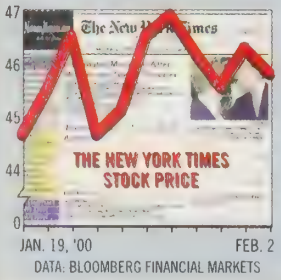
PFIZER CLOSES IN ON ITS PREY

THE BATTLE FOR WARNER-Lambert may be coming to an end. As BUSINESS WEEK went to press, sources say Pfizer has agreed to up its bid for Warner to $85 billion plus, a maneuver that could clear the way for an agreement. A looming question, however, was how Pfizer will compensate American Home Products, which still has a pending merger agreement with Warner-Lambert. American Home is entitled to a $1.8 billion breakup fee. And the company could demand even more in exchange for not exercising certain options that would force Pfizer to use an unfavorable accounting treatment.

CLOSING BELL

NOT-SO-GRAY LADY

For months, media circles have been buzzing about which Old Media outfit would spin off its Internet business first. On Jan. 28, New York Times Co. announced it would raise $100 million by issuing a tracking stock for Times Company Digital, which includes nytimes.com. The result: At close, the stock was down 1.5%, to 46 5/16. Perhaps the anticipated runup was already reflected in Times stock, which is up 38% over the past year.



DATA: BLOOMBERG FINANCIAL MARKETS

CRUISE CONTROL: HOW NCL WAS TAKEN

AFTER MAKING RIVAL BIDS for NCL Holding, Carnival and Star Cruises of Malaysia teamed up on Feb. 2 with a $1.1 billion joint bid for the No. 4 cruise operator, which owns Norwegian Cruise and Orient lines. The joint bid ends a bizarre takeover battle in which Oslo-based NCL, to repel a surprise bid by Carnival, turned to Star as its white knight. But when Star moved to seize control of NCL itself, NCL veered back to Carnival. Now, the rival suitors say they will use their new partnership to cross-market their cruises around the world.

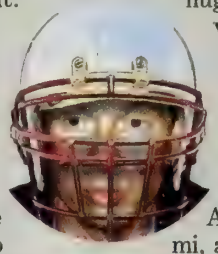
HANGAR TIME FOR AMERICA WEST?

FEDERAL AVIATION WATCHDOGS are threatening to ground America West Airlines' plans to expand its fleet unless the Phoenix-based carrier cleans up its act and quickly resolves chronic maintenance problems. In a Jan. 25 letter to America West that was disclosed on Feb. 2, the Federal Aviation Administration warned that the airline's rapid expansion was straining its ability to maintain its planes, citing missed maintenance checks and a shortage of trained ramp workers. America West, the nation's ninth-largest carrier, denied the FAA's allegations.

HEADLINER: VINCE McMAHON

GET READY FOR PIGSKIN SMACKDOWN

Here's the latest brainstorm from Vince McMahon and his colleagues at World Wrestling Federation Entertainment: extreme football. Imagine Stone Cold Steve Austin in a football jersey, and you've got the concept. Yes, where others have dared not go—into off-season pro football—WWF is charging in. And this will be tough football for tough men, says Michael Keller, newly hired vice-president for WWF football operations.



Isn't "extreme football" redundant? And does America really need another league? Ted Turner and NBC together took up and dropped the idea last yea But, says Keller, "when t Super Bowl ends, there's huge void, and so w will step in."

The WWF plan to launch its XF (get it?) in 200 with eight teams, includin New York, Los Angeles, and Miami, and cable broadcasts. The Stamford (Conn.) company is busy signing up football gladiators from NFL Europe an college teams. Says Keller "We will not limit their d sire to celebrate in the en zone." If this flies, get ready for extreme hockey.

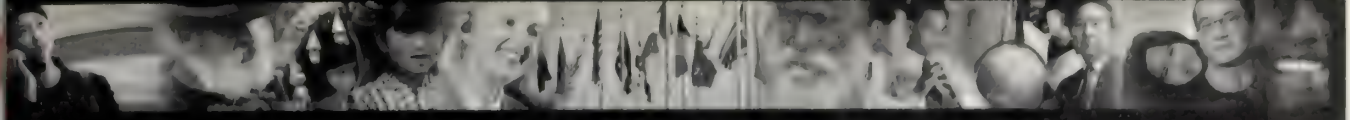
By Pamela L. Moo in Greenwich, Con

DIALING FOR DOLLARS IN CHINA

ASK ANYBODY IN THE TELCOM industry, and they'll tell you that China is the most promising untapped cellular-phone market: The number of Chinese using cell phones is expected to soar by 63% this year, to 70 million. So it was big news when Qualcomm cut a deal on Feb to license its CDMA technol to the Middle Kingdom. the rewards will be far fr immediate. "It will be at le a year before there's meaningful revenue," s Justin McEntee, an anal at Chase H&Q. Although financial terms of Qualcom agreement with China Uni Telecommunications, the tion's No. 2 phone compa were not disclosed, shares San Diego-based Qualcor jumped 7.1%, to 136 1/16, on news.

ET CETERA...

- Amazon.com reported la er-than-expected losses, its book biz turned a profi
- Intel will buy a closed pl from Rockwell Internatio to hike flash-memory capac
- U.S. regulators will go court to block the BP A co-Atlantic Richfield merg
- A new version of Lin software will be released summer, its creator said.



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ITED BY PAULA DWYER

NE WIRED NATION, INDIVISIBLE? R ONE BIG BOONDOGGLE?

When President Clinton unveiled his agenda for the year 2000, he drew cheers from Democrats by proposing a $2 billion initiative to close the gap between nputer haves and have-nots. Fighting the "digital divide" become a motherhood issue for politicians, who have e from promising a chicken in every pot to a computer in ry family room. But however well-intentioned, few pols e thought through how to attack techno-illiteracy at its ts. Skeptics worry that throwing money at the problem y produce a boondoggle that subsi-s the computer industry.

For now, pols are too busy getting the act to bother with such details. h Vice-President Al Gore and former nator Bill Bradley vow to narrow the ital divide. And Senators Spencer raham (R-Mich.) and Ron Wyden (D-.) advocate tax breaks for companies t give PCs to needy groups.

D COZY? President Clinton outdid m all on Feb. 2 with his Digital Op-tunity initiative. Flank by America line CEO Steve Case, Clinton an-nced a plan to give tech companies $2 billion in tax in-tives over the next 10 years to build and support com-nity technology centers, donate PCs, and provide training. you look at the people and places that have been left be-d in this economy," Clinton told BUSINESS WEEK, "one of quickest ways to catch them up is to make sure they e access to the Net."

On the same day, in San Francisco, Gore's top domestic pol-adviser, David Beier, unveiled a private-sector initiative, bed Clickstart, that hopes to take advantage of Clinton's v plan by supplying computer and Internet access to up to illion poor families for a token fee of about $15 a month. ckstart, which seeks to tap into $380 million in federal nts that the Clinton plan also would make available, grew out of a Democratic fund-raiser that Novell CEO Eric Schmidt held last October.

Some critics question the cozy relationship between the White House and the high-tech industry. They contend that efforts to bridge the divide may be largely political in an era of plunging PC prices and free Web access. Already, 23% of African American households are online, as are 36% of Hispanic households, according to Forrester Research Inc. "We're entering the age of free computing," says Adam D. Thierer, a Heritage Foundation scholar. "This could be a new form of corporate welfare." Counters Bruce Lincoln of Columbia University's Institute for Learning Technologies: "This is not about digital welfare, it's about digital economic development."

CASE AND CLINTON: *Net catchup*

Even some business lobbyists think there's a better way. The U.S. Chamber of Commerce, for instance, says that before spending new money, Congress ought to train teachers to use the billions in new hardware already supplied to the nation's schools. "If you don't know how to use it, what good is that computer?" says Rick Lane, the Chamber's director of e-commerce.

Republicans suggest that Clinton's timing is impeccable. The proposal, they say, is a giveaway to two key constituencies—low-income minorities and Silicon Valley, which is key to political fund-raising this election year. "The last thing we need is to turn the Info Superhighway into a public works project," says Republican National Committee spokesman Mike Collins.

"This is not a political deal," Clinton insists. "If I had waited for the market to solve universal telephone access, there'd still be places in Arkansas where people wouldn't have a phone." But the biggest legacy of his mini-New Deal for the Net-deprived might be better bottom lines in techland.

By Lorraine Woellert

CAPITAL WRAPUP

MOCO'S HORRIBLE WEEK

It was a bad week for BP Amoco LC. The Federal Trade Commission on 'eb. 2 voted to block the London-ased oil giant from merging with .rco. At issue: The FTC believes that P Amoco's Alaskan unit, when com-ined with Arco's operation, would ave too much oil-production and gaso-ne-pricing clout. Settlement talks be-ween the FTC and BP Amoco failed hortly before the FTC vote, prompting nasty legal battle that could go to e Supreme Court. Meanwhile, on Feb. 1, a federal judge socked the same Alaska subsidiary with a $500,000 criminal fine for failing to report the dumping of hazardous waste. When the cost of a related civil case is added, BP Amoco could spend $22 million to resolve the charges.

BUSH UTTERS THE 'T' WORD

▶ Up to now, George W. Bush has preferred to cast his tax cut as a five-year, $485 billion affair—despite the fact that, when fully implemented, it would cost $1.3 trillion over 10 years. Why the modesty? Bush wanted to shield himself from budget-busting charges, so he deviated from conventional practice and provided cost projections for only five years. But in New Hampshire, where Bush pursued a "my tax cut is bigger than your tax cut" line of attack against GOP rival John McCain, that changed. On Jan. 30, the Texan told a town-hall meeting in Hudson, N.H., that he backed "a trillion-dollar tax cut." Bush aides say that new CBO projections, which show the projected surplus growing to $1.85 trillion over the decade, mean there may be more room for tax-cutting now.

GERMANY

OH, WHAT A TANGLED WEB

The tale of how Germany's CDU nurtured a system of corrupt finance

Just after lunch on Aug. 26, 1991, in the Swiss border town of St. Margrethen, three Germans converged in a shopping center parking lot. One of the men handed over an envelope containing $500,000 in cash. After a brief discussion, they went their separate ways.

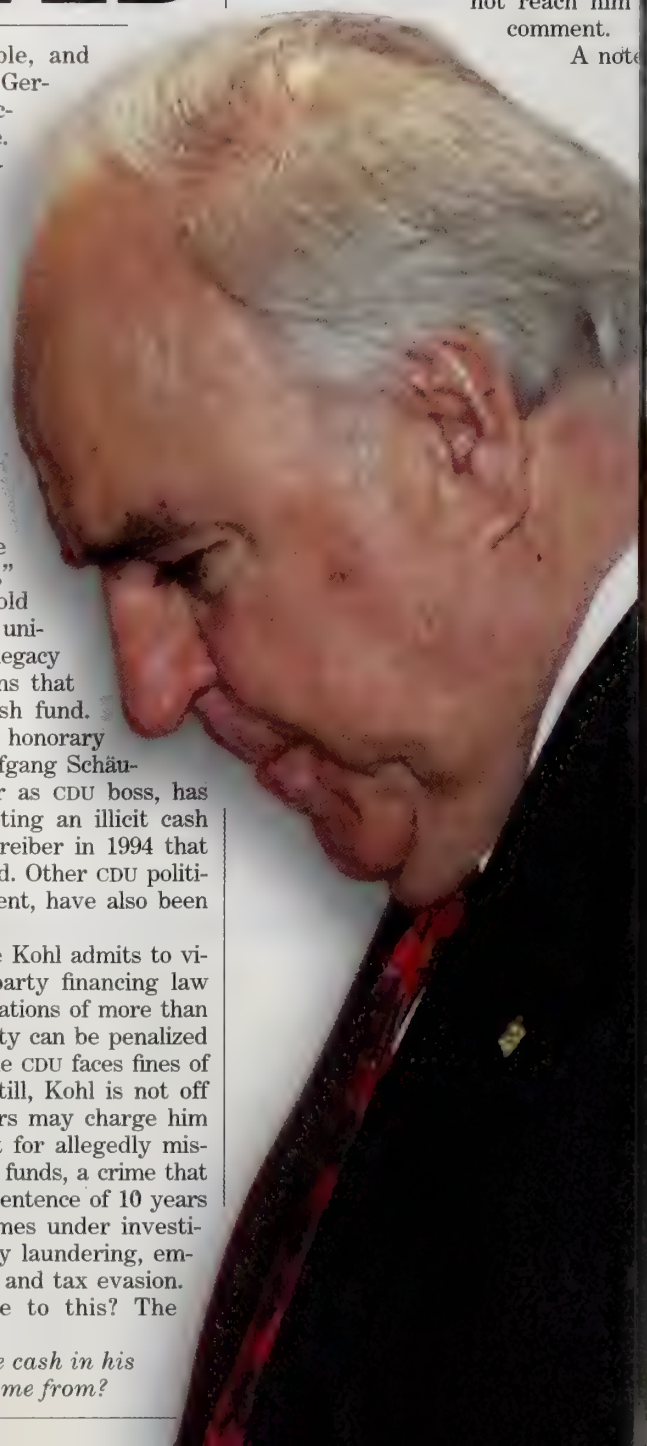
Eight years later, the consequences of that meeting are rocking Germany's political Establishment to its core. The three who came together that day were Karlheinz Schreiber, a German-Canadian arms dealer; Walther Leisler Kiep, the longtime treasurer of Helmut Kohl's Christian Democratic Union; and Horst Weyrauch, Kohl's trusted party accountant. The $500,000 passed from Schreiber to Weyrauch—payment, investigators suspect, for the CDU's support of a sale of 36 tanks by Thyssen to Saudi Arabia. But this is not an isolated case of bribery. Prosecutors have established that the money landed back in CDU accounts. And that has led them to probe a broader web of corruption involving CDU finances and secret bank accounts run by former Chancellor Kohl.

The scandal surrounding what Germans are calling *Das System Kohl* has captured headlines for weeks. It could take months for prosecutors to track down the origins and donors of at least $16 million in CDU funds, and to figure out whether that money was illegally obtained, either as payoffs for services rendered or as illegal campaign contributions. More will emerge when parliamentary hearings on the CDU mess begin in mid-March. But even now, legal experts, businesspeople, and the newly assertive German media are piecing together the tale. Many see the scandal as part of a broader transformation in Germany—the end of the era of consensual politics, where the border between government and business was often blurred.

The disclosures certainly are shaking up the CDU, run for 16 years by the "eternal chancellor," Kohl. The 69-year-old architect of German unification has seen his legacy stained by revelations that he ran a secret slush fund. He has resigned as honorary party chairman. Wolfgang Schäuble, Kohl's successor as CDU boss, has also admitted accepting an illicit cash "donation" from Schreiber in 1994 that has since disappeared. Other CDU politicians, past and present, have also been implicated.

ON THE HOOK. While Kohl admits to violating Germany's party financing law by not declaring donations of more than $10,000, only his party can be penalized for the infraction. The CDU faces fines of up to $18 million. Still, Kohl is not off the hook. Prosecutors may charge him with breach of trust for allegedly mismanaging his party's funds, a crime that carries a maximum sentence of 10 years in prison. Other crimes under investigation include money laundering, embezzlement, bribery, and tax evasion.

How did it come to this? The CDU's troubles started in 1995, wh prosecutors in Augsburg began inve gating arms dealer Schreiber. Inve gators stumbled onto the $500,000 p ment as part of a probe i commissions Schreiber received for l bying work he did for Airbus Indus and Thyssen. It took them four years amass evidence, but finally they issue warrant for Schreiber's arrest on t evasion charges. Canadian police rested the 65-year-old Schreiber Toronto last September. He is now fi ing extradition. BUSINESS WEEK co not reach him comment. A note



KOHL: *Where did the cash in his secret slush fund come from?*

PHOTOGRAPHS BY KAI NIETFELD AFP PRESSLINK

ıreiber's calendar led prosecutors to k into his dealings with CDU treasur- Kiep. A dapper man, now 73, Kiep d the purse strings for his party from 71 to 1992 and was well-connected h the leading lights of Germany Inc. early November, prosecutors also is- d a warrant for his arrest on tax ısion charges. Kiep turned himself in l was released on $250,000 bail. He ıied in court that he had pocketed $500,000 from Schreiber. Instead, said, Kohl accountant Weyrauch had ɔosited it into a CDU account. yrauch, who runs a Frankfurt ac- ıntancy, had been engaged by Kiep in 71 to work for the CDU. Kiep declined comment.

MBSHELL. Kiep's November disclo- e sent a chill through the CDU ranks. Nov. 9, Kohl denied knowledge of Schreiber donation. But the story uldn't go away. Former associates gan whispering to the German press ɔut secret accounts Kohl ran when was Chancellor—apparently so he could spend party money without leaving tracks. Then came the bombshell: On Nov. 30, Kohl acknowledged that he had indeed operated secret party accounts, thus breaking federal party financing laws.

The pressure for more information kept building. In a TV interview on Dec. 16, Kohl admitted to accepting up to $1 million in secret donations between 1993 and 1998, and said he used the money to finance East German CDU branches. But he refused to reveal where he got the money, saying he had given his word not to do so. Since then, an audit of the CDU's books by Ernst & Young has revealed that CDU accounts hold $6 million in undeclared donations—far more than Kohl admitted.

Many Germans think Kohl is lying about the secret donors. Some believe Kohl and the CDU banked big donations from German companies. Others, including German television station ARD, have ventured that Kohl's old French friend, François Mitterand, gave money to him when he faced an uphill battle for reelection in 1994. By this theory, Mitterand may have used state-owned Elf-Aquitaine, which purchased East German oil refinery Leuna in 1992, as a conduit for a $15 million donation. Kohl calls such suggestions "absurd."

Still, the revelations keep coming and they're bringing down prominent CDU politicians. Manfred Kanther, Germany's Interior Minister from 1993 to 1998 and leader of the CDU in the state of Hesse from 1991 to 1998, resigned his parliamentary seat after admitting in a news conference that the Hesse CDU had transferred $4 million to accounts in Switzerland. Kanther, who could not be reached, is under investigation for suspicion of breach of trust.

Investigators are just as puzzled over the origins of the Hesse funds as they are about Kohl's secret accounts. While it's not illegal for a German party to have foreign accounts, it is illegal not to include the assets in annual reports. Prosecutors are hoping that Weyrauch, 67, will unravel the mystery: Weyrauch not only set up Kohl's secret accounts, he also managed both the official and secret accounts of the national and Hesse CDU. Under investigation for suspicion of both fraud and breach of trust, Weyrauch describes .himself as a "cog in a wheel" who acted on orders. Weyrauch did not return phone calls from BUSINESS WEEK. He recently warned a CDU official in a phone conversation that his revelations will "rock the republic."

The CDU scandal could well lead to the prosecution of several leading German political figures before the dust settles. But truth be told, the Old Germany represented by Kohl was already disappearing. Instead of stability, Germans are now more interested in accountability. If Germans weren't ready to sacrifice Kohl and move on, the arrest of an arms dealer in Toronto would not have caused *Das System Kohl* to fold like a house of cards.

By Matthew Karnitschnig in Frankfurt

MERGERS

CHRIS GENT, KING OF THE WEB?

His risky strategy: Trying to rule Europe's Net through mobile phones

The taunts started two months ago, right after Vodafone Chairman Chris Gent launched his $163 billion takeover bid for telecom rival Mannesmann. In full-page ads, Mannesmann ridiculed Vodafone AirTouch PLC, its unwelcome suitor, as a neophyte on the Net. The German company, with its own established wired-line Internet service, contrasted its Net "experts" with the British "novices."

Mannesmann's taunts stung. After all, the biggest prize is not Europe's phone market but mastery of the European Internet. And the next rush in Europe will be to access the Net through mobile phones. When Chris Gent began the fight for Mannesmann on Nov. 14, Vodafone was already the world's largest mobile-phone company. But it had only an embryonic Net business. Since then, Gent has rounded up a glittering cast of Net partners, including IBM. And on Jan. 30, he announced a tie-up with France's Vivendi. That deprives Mannesmann of a potential ally in the takeover war, virtually ensuring that Vodafone will triumph by Feb. 7, the day Mannesmann shareholders are set to vote on Gent's bid. It also gives Vodafone more pieces for its Net offerings, from French content to links with digital TV.

Now, Gent must fulfill his promise to turn Vodafone-Mannesmann into a titan of the Web. If he pulls it off, Vodafone could provide Europe with its first global Net powerhouse, a force to thunder onto the same cyberstage as American powerhouses Yahoo!, Microsoft, and America Online. And Vodafon would be pioneer: t first compa to build worldwide N presence on wir less devices.

Gent's strategy risky. The technol gy is in its infanc Strong European co petitors abound, rangi from national powers su as Deutsche Telekom savvy marketers such Richard Branson of Virg Group Ltd. Even manufactu ers are getting into the fray. Fi land's Nokia is discussing ne services with Britain's News Cor among others.

What's more, the vast potential the mobile Net has led to a price e plosion in the industry. Gent himself paying an eye-popping $9,000 per cu tomer in his bid for Mannesmann, mo than twice what Deutsche Telekom pa for British Carrier One 2 One last fal

PRECIOUS. Vodafone's biggest battle w take place on the tiny screen of the c phone. This precious real estate, know as the "mobile portal," is what N surfers will see when they turn on the phones. Practically everyone in the bus ness, from the phone companies to M crosoft and AOL, is eager to control it.

Why? In a tiny mobile Web whe Net-surfing is hard, it's the little port that will steer users to a host of bas services. Whoever owns the portal ca make a bundle on advertising and co missions. No wonder Microsoft is wor ing with Ericsson to develop a mobi browser, around which it plans to de velop its own portals. And AOL Interna

Vodafone vs. America Online

The two companies will be major rivals for screen space on mobile phones. Here's how they stack up:

	VODAFONE*	AOL**
MARKET CAP	$329 billion	$290 billion
CUSTOMERS	50 million	100 million***
MOBILE EXPERTISE	Leader	Novice
NET SMARTS	Novice	Leader
CUSTOMER STRENGTH	Business	Consumer
CONTENT	Just starting	Strong

*Includes Mannesmann **Includes Time Warner
***Includes print & cable subscribers

al President Michael Lynton says a place on the mobile Net is "abtely essential."

ent has some short-term advantages r the American Web giants in the to stake out the most territory on New Age Net. As a phone compa- Vodafone already has a billing relaship with the customer. This can po- on it as a bank for e-commerce isactions, in which the user puts the rge on the phone bill. Second, phone panies can track customers' moveits. In fact, next year, using satellite nology, they will be able to pinpoint istomer's position within 300 feet—and send them electronic coupons, for example, to a nearby restaurant. "That's a big plus over anything AOL can bring to the party," Gent says. He adds that while AOL has knocked phone companies out of the lucrative Internet portal business in the U.S., "we're not going to allow them to do that to us here."

SCARED STIFF. Maybe not. Gent, after all, has the global reach to hammer out tough agreements with Web powers, relegating them to the margins of his portal. But Vodafone's rivals, such as Deutsche Telekom's cell-phone service, are not so lucky. They may well be tempted to give Yahoo! or AOL a prominent place. With this, the Americans could extend their mastery to the mobile Web and provide Vodafone with fearsome competition. "That's what scares the phone companies stiff," says one banker.

If Gent picks up Mannesmann, as expected, he solidifies his hold as the mobile-phone king of the world. But it's his battle for the Internet that's likely to keep him working overtime for years. In the end, Chris Gent may well become Europe's first Web titan—but not without a ferocious fight.

By Stephen Baker in Paris and Kerry Capell in London

ITZERLAND

WATCH: READY OR NET TIME?

e watchmaker is looking a high-tech blockbuster

ou're toweling off after a swim when your wristwatch-phone starts beeping. You tap a button, and—sto, you're talking to your broker. ile you chat, you tap another but- and log on to the Internet to check performance of a stock he's recomding. Far-fetched? Not to Nicolas Hayek, chief executive of Swatch oup Ltd. The flamboyant Lebanese- n engineer who revolutionized the ch business in the 1980s is looking his next breakthrough. He's putting watch wristwatch-phone on the market this year, as well as a watch equipped for Internet access. He's also working with Hewlett-Packard Co. to develop even more advanced watches.

There's no doubting Hayek's enthusiasm. His office in Biel, Switzerland, is cluttered with Swatch inventions, including designs for a hybrid battery-and-gasoline powered car. Yet isn't the watchmaker getting distracted with gimmicks? "Some people considered the Internet to be a gimmick," he says. Hayek admits that his new gizmos may not become t-sellers. "But even if a product is d by 20% of consumers—20% of conners, you cannot ignore," he says.

W BRAND: *atch bought rguet for million*

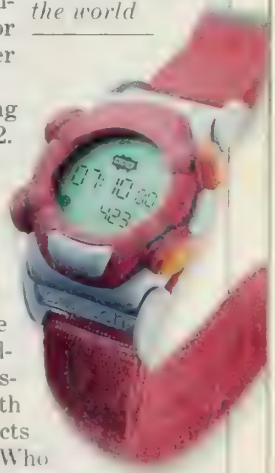
SWATCH CEO HAYEK: *He's riding high, thanks to a rebound in watch sales*

Hayek, who owns nearly 40% of Swatch, is riding high these days. Fueled by Asia's recovery and record U.S. consumer spending, Swatch turned in its best performance since 1992 last year, and its stock price doubled. Sales were up 10.9% to $2.2 billion and profits jumped an estimated 20% to $258 million. Yet sustaining that pace will be tough, because the watch market is growing at less than 5% a year.

Hayek's quest for a blockbuster new product is also proving difficult. A couple of attempts have misfired, including a prototype wristphone that was too bulky to market and a stake in DaimlerChrysler's troubled Smart Car project, which Swatch sold back to the auto maker. Some doubt that his newest offerings will fare much better. While the mobile-phone industry is racing toward the Internet, the Swatch wristphone being launched this year won't offer Web access. The Internet Swatch is an awkward contraption that has to be used with a computer terminal and a special mousepad. "All of Swatch's attempts to diversify have been a flop," says Frederick Hasslauer, an analyst at Bank Sal. Oppenheim in Zurich. "Mr. Hayek is an extremely good salesman, but he gets carried away by his own enthusiasm."

BRAND POWERHOUSE. He certainly scored big starting in the early 1980s by turning the whimsical, $30 Swatch into a fashion accessory. More recently, as competition has stiffened, he has opened his own retail stores. Swatch now has 300 stores worldwide and plans to open 200 more by the end of 2001. Hayek is also rolling out new models such as the ultrathin Swatch Skin, priced at $60, and an aluminum-encased sport model, the Swatch Irony Scuba 200, priced at $70. Overall, his company now accounts for more than 50% of the Swiss watch industry with Swatch owning a stable of brands, including Omega, Longines, Tissot, and Calvin Klein. He paid an estimated $75 million last year for French watchmaker Breguet.

MASS FASHION: *Swatch has 300 stores around the world*



Time is running short for Hayek, 72. He plans to step aside from day-to-day-management within two years, probably turning that job over to his son. Meantime, the quest for a hot product goes on. One possibility: A watch with a smart chip that acts as a debit card. Who knows? This master watchmaker could still have a winner in his toolkit.

By Carol Matlack in Bie

SOUTH KOREA

A HIGH-STAKES SHELL GAME

How long can Seoul prop up troubled investment trusts?

South Korea appears to be on the verge of financial stability. The government has worked out an agreement with the foreign creditors of Daewoo Group, the failed *chaebol*. Banks are lending money again. The currency is holding steady. Foreign exchange reserves are rising. But behind the scenes, the government is still playing a shell game, moving public money from its coffers to prop up troubled investment trust companies and doing whatever is necessary to shield them from market forces.

That's why on Feb. 8 it will have to make good on a promise to repay retail investors 95% of the original value of Daewoo bonds they hold. The 24 trusts bought some $24 billion worth of the paper in 1997 and 1998, figuring that Seoul wouldn't let a company as big as Daewoo go under. Of course, they figured wrong. Daewoo all but declared bankruptcy in July, 1999; the bonds became practically worthless. The government feared a run on the trusts that together manage about $170 billion—more than a fifth of all South Korean savings—and so offered the guarantee.

Seoul isn't taking any chances. The government estimates that redemptions could reach as much as $27 billion, including $21 billion worth of bonds that will have matured by Feb. 8. In preparation, officials secured $32 billion and a promise from the central bank to buy bonds directly from the trusts if necessary. "There won't be any financial calamity in February," declares Lee Yong Keun, chairman of the state-run Financial Supervisory Commission.

CRASH CONTROL. The government has every reason to be cautious. Since July, Koreans have withdrawn some $54 billion from the trusts. If 10 million spooked investors pulled out the rest of their money, the trusts would have to dump stocks and bonds to cover the redemptions. That would bring down the equity market and send interest rates soaring; the economy would reel back into recession

Seoul's policy isn't motivated only by economics, though. Parliamentary elections are due in April. With more than a third of all voters holding trust accounts, President Kim Dae Jung wants to avoid inflicting financial pain on them. Nor does he want other taxpayers to think they will have to foot the bill for trust companies' losses. Many people seem unaware that they have already begun to. And there's no getting around the fact that one day Seoul will have to bail out the entire investment trust system. "Eventually, the government will have to use taxpayers' money to clean up the trusts," says Shin In Seok, a research fellow at Korea Development Institute, a government think tank. There's no saying now just how much that could cost.

For now, though, a cleanup isn't on the government's agenda. It just wants to keep the trust companies up and running. Korea Asset Management Corp., the state agency charged with sorting out the financial sector, has agreed to buy $16.6 billion of unsecured Daewoo debt from the trusts a 65% discount. And government will dire inject $2.6 billion into two oldest and most tr bled trusts—Korea vestment Trust and D han Investment Trust Their combined losses ceed their net worth $1.6 billion (table).

> A run on the trusts would force them to sell off stocks and bonds, maiming the equity market–and the recovery

Adding to the problems of the tru in general is an absurd settlement s tem. When customers redeem th shares in bond funds, they are paid immediately—based on the previ day's prices. "The trusts were set in the 1970s to create a new source funds for the country's industrializati not because of market needs," expla Shin Hwa Seob, a planning manager Daehan Investment.

LIMITED REFORM. Policymakers ha tried to make the trusts competiti But often their initiatives fail for want political will. Last year, for example, t government mandated that the tru must sell part of their portfolio to m redemption claims, instead of borro ing cash and handing it out right aw Yet the new system won't apply to m bond funds until July. That's also wh the trusts will have to begin adhering the most basic accounting principle: c culate the value of bonds based on m ket prices, not on inflated purcha prices. Even then, the rules will ap only to new bond funds.

If they're applied at all. Seoul co easily back down. But as long as t government continues to prop up t investment trusts with public mon and protect them from market forc Korea's financial system is in jeo ardy. The shell game is more da gerous than it looks. In the end, t losers come up empty-handed.

By Moon Ihlwan in Seo

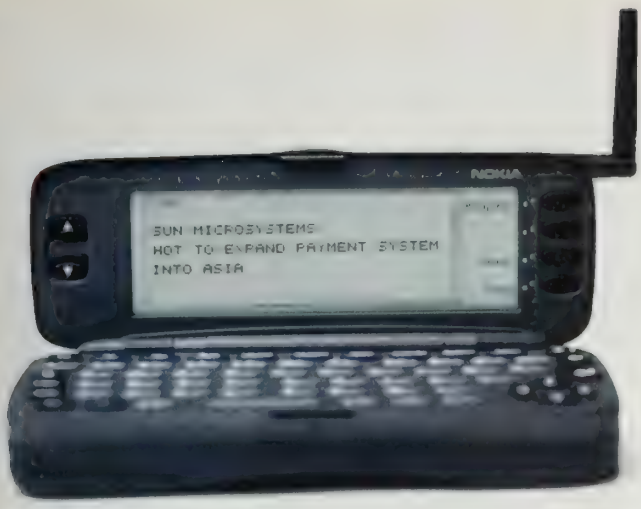
NOT SO TRUSTWORTHY

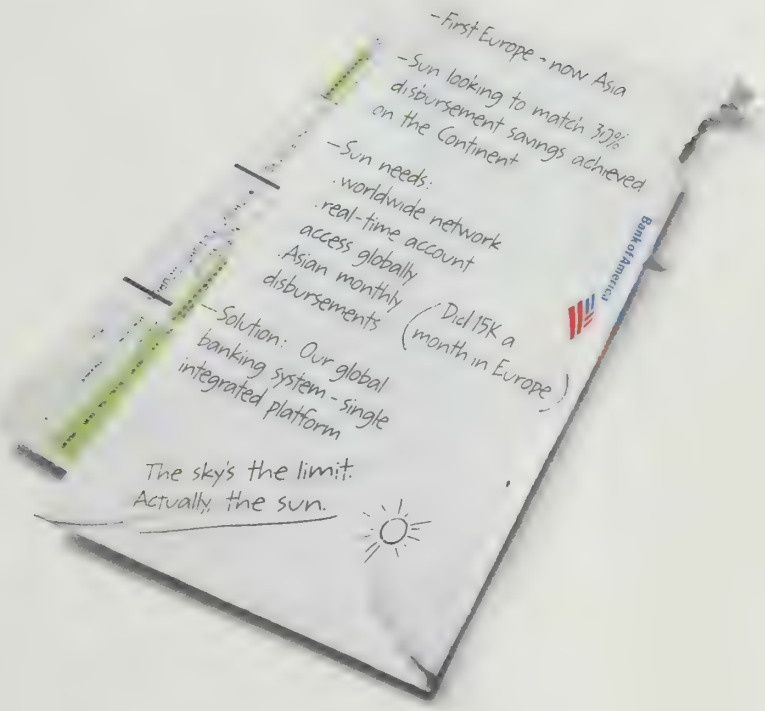
Korea's investment trusts are in trouble

	NET WORTH* MILLIONS	FUNDS UNDER MANAGEMENT** BILLIONS	UNSECURED DAEWOO BONDS** BILLIONS
KOREA IT	$–1030	$22.1	$2.7
DAEHAN IT	–534	20.9	1.3
HYUNDAI IT	20	25.6	1.9

*As of Jan. 29, 2000 **As of Sept. 30, 1999

DATA: KOREA INVESTMENT TRUST COMPANIES ASSN.





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COMMENTARY

By Bruce Einhorn

BIG BROTHER MAY CRUSH CHINA'S WEB DREAMS

The control freaks who rule Beijing don't give up easily. Back in September, Chinese officials threw investors a scare by declaring the country's Internet companies off-limits for foreigners. Eventually, Beijing backed down as part of its deal to join the World Trade Organization. Undaunted, Communist hardliners in late January unveiled a package of new regulations that threaten to do far more to retard the development of China's Internet than any curbs on investment. They range from limits on encryption software that enables Web users to keep communications confidential to threats of punishment for any Internet host whose service disseminates "state secrets."

But Beijing's agenda is much bigger than silencing a few dissidents. As with most attempts to rein in foreign involvement in a domestic industry, a primary motive for Beijing's Internet crackdown is commercial self-interest. The new rules, which also limit Net companies' ability to raise funds by listing shares on overseas stock exchanges, are part of an escalating campaign to consolidate control over what promises to be a vastly lucrative e-commerce industry.

JEALOUSY. Beijing's real targets are not subversive foreigners; they are the fleet-footed startups run by private entrepreneurs who have emerged as the leaders of Chinese cyberspace. Sohu.com, Sina.com, and Netease.com have run circles around sites controlled by sluggish bureaucracies and state-owned enterprises. The dot.coms set off an Internet explosion in China with entertaining and interesting sites. Business-to-business offerings such as Alibaba.com, funded by Softbank and Goldman Sachs, promise to transform Chinese industry.

This success has fueled nothing but jealousy among state enterprises, which could be left in the dust as the Internet Age takes off. And if Beijing's leaders let the hardliners have their way, the biggest loser will be an economy struggling to throw off the last stifling burdens of socialism.

One champion of state control is Information Industry Minister Wu Jichuan. His interest is clear. Wu's ministry is starting to lose the monopoly on its old cash cow, the telecom sector. A freewheeling Net would make the ministry far less powerful. It was Wu who first proposed kicking out the foreigners last year. In the weeks of uncertainty that followed his statements, the Chinese Internet world was on hold, waiting to see if Wu had the clout to make his threats real. He didn't. In November, President Jiang Zemin and Premier Zhu Rongji promised to allow foreigners to own up to 50% of Chinese Net companies.

Yet the opening to foreigners gave the protectionists a new weapon. Chinese Net companies know that if they violate certain taboos, they will get a visit from unfriendly Public Security Bureau agents. So most dot.coms have censored themselves to keep sensitive content from the masses. Now, in the name of making the rules more transparent for foreigners, Beijing is putting these unstated guidelines in writing, giving them more weight.

OLD MISTAKES. But the new rules leave one thing deliberately vague: What, in the end, is a state secret? The answer: Whatever Beijing wants it to be. Thus, Net companies must stay on the government's good side. What's the best way to do that? Not by joining forces with some uppity private entrepreneur straight out of college. Much safer to ally itself with a state company that has the connections to make problems go away.

The sad thing is that the Internet represents China's big chance to leap into the New Economy. Instead, Beijing is about to repeat old mistakes, entrusting its economic future to the folks who made such a mess in the past. That could put China at a disadvantage compared with Asia's other awakening giant—India. Investors there rave about the country's hot software and Net content suppliers.

Of course, Beijing's gambit may fail to scare away investors. Cybertycoons, after all, thrive on risk. Let's hope so. Otherwise, a few years from now we'll be reading about the desperate plans to reform China's state-dominated Net sector—and of how Beijing blew one more chance to change.

Correspondent Einhorn covers the Asian Internet from Hong Kong.

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MOTOROLA EMBEDDED SOLUTIONS

EDITED BY PATRICIA KRANZ

AUSTRIA: IS THE EUROPEAN UNION FANNING RIGHT-WING FLAMES?

Austria is one of Europe's smaller countries. But the prospect of Jörg Haider's populist Freedom Party entering a coalition government is sparking a crisis in the entire European Union. The Freedom Party's ascension to power would be a watershed—the first time since the end of World War II that a far-right party has played a key role in any government in Western Europe.

The risk is that the EU's horrified reaction could accelerate the crisis instead of solving it. Haider's Freedom Party, which vigorously opposes immigration and EU expansion and includes Nazi sympathizers in its ranks, may soon form a coalition government with the country's mainstream conservative party. "We must take concrete action if this happens," says a spokesperson for French President Jacques Chirac. "Europe must make sure that all its members share its common ideals." On Jan. 31 the EU said its members would break off contacts with any government that included the Freedom Party.

HAIDER: *EU threats boost his popularity*

But some leaders wonder if the EU is just fanning the flames. "I don't like Haider's policies, but he got a lot of votes in a democratic election," says Vaclav Klaus, chairman of Parliament in the neighboring Czech Republic. "If the EU gets involved like this, it could easily make matters worse."

"TREAD CAREFULLY." By ostracizing Austria, the EU may give a further boost to Haider's right wing. Haider's popularity has soared since the EU started rattling its saber. Politically, the Freedom Party could emerge even stronger if the country were forced to the polls again, which is bound to happen if President Thomas Klestil rejects the coalition proposal that the People's Party and Freedom Party presented to him on Feb. 1. Austrian polling institute IMAS calculates that the Freedom Party now has the backing of 33% of voters, up from the 27% who voted for it in October's gen election.

Just as bad, the EU's condemnation could revive the right in other European countries. France's National Fr which has gotten up to 15% of the vote at general electio was quick to condemn criticism of Haider. "The far right other countries could use the whole thing for propaganda p poses," says an Austrian-born executive at one leading G man company. "The EU needs to tread really carefully." An ganized far-right movement in Eur would campaign hard to stop the E expansion east and seal Europe's b ders against immigrants.

Some conservative politicians in G many have come out against EU volvement. Their reasoning: The Fr dom Party has no experience of pow and few talented members, so it m be better to step back and let Haide followers self-destruct in governme "Giving them political power will u dermine rather than strengthen then says the Austrian businessman. "It w take the wind out of the windbag."

Proponents of the EU's stance say it's vital to fight e tremist forces head-on, regardless of the consequences. E ropeans still harbor painful memories of fascism and the ac of appeasement that helped it grow. Whatever happens, it w be hard to silence Haider, who says he's no Nazi. He h tapped into the mounting anger many Austrians feel at t way socialist and conservative politicians have divvied u the top jobs in state-owned industries and other spoils of po er between them. Now, this dysfunctional political culture giving Haider's nasty strain of right-wing populism an o portunity to disrupt European politics in potentially dange ous ways.

By David Fairlamb in Frankfu

GLOBAL WRAPUP

REMAKING BRITISH AIRWAYS

▶ British Airways CEO Bob Ayling is stepping up his efforts to stem the carrier's losses. With red ink expected to hit $400 million for the year ending Mar. 31, Ayling is going all-out with his premium-fare strategy. To boost the proportion of passengers paying higher fares, he's reducing capacity by 12% to 15%, cutting back on low-margin economy-class seats, introducing a new, higher-priced economy section with more comfortable seats and more legroom, and adding beds to make business class more attractive. Other efforts include refurbishing BA's supersonic Concordes and its airport lounges. Total investment: $980 million. The capacity cuts will result in job losses over the next few years, with several thousand jobs likely to go.

BRAZIL TRIES HARDER

▶ Brazil is changing the rules to try to attract more foreign players to its financial markets. Effective Mar. 31, nonresidents will be allowed to invest directly in Brazilian equities and fixed-income securities. Previously, foreigners had to do their buying and selling through mutual funds or brokerages. Separately, the São Paulo Stock Exchange, which accounts for over 85% of the daily trading volume in Brazil, is merging with the smaller Rio de Janeiro Stock Exchange. Brazil hopes the easier access for foreigners and the merger of the exchanges will increase liquidity. Volume has been falling as investors do more of their trading of Brazilian shares in New York. Although market experts don't see an immediate impact, they say it's a good long-term move.

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The race is on to perfect new ways of blasting data

If radio signals were visible to the human eye, cities might look like this view of Los Angeles: up to their gargoyles in radio waves. You would see transmissions from millions of cell phones and laptops, Palms and pagers, bouncing, bumping and reflecting through the urban canyons.

What you might notice, right away, is that radio spectrum is limited and getting more crowded every day. Communication businesses already feel the crunch. If they want to provide a new cell-phone service or wireless Internet access, they either have to license more frequency from the government or get smarter about how they use the airwaves.

Fortunately, radio engineers are getting incredibly smart. In a stunning set of breakthroughs, scientists at Lucent Technologies Inc.'s Bell Labs are figuring out how to stack antennas in arrays that could yield a hundredfold increase in radio capacity. If it works, that will mean huge boosts in wireless voice and data traffic, with no extra spectrum costs. Cisco Systems Inc. is playing the same game, charging into the high-speed wireless arena with flashy signal-processing techniques acquired from Stanford University.

"HOTBED." The U.S. government is lending a hand, funneling money for wireless research to universities—where profs are busily filing patents and spinning off wireless businesses. Venture capitalists, sniffing quick returns, are beefing up equity stakes in undercapitalized wireless startups. "This whole area is a hotbed of activity," says James J. Hannan, a technology vice-president at Sprint Corp. "The opportunity is now."

Bell Labs incited much of the current frenzy back in September, 1998, when its researchers unveiled a technology called Bell Labs Layered Space-Time (BLAST). The name evokes Star Trek wizardry—and that may turn out to be justified.

In the normal world of radio, the amount of information you can transmit in a slice of spectrum is limited by interference from radio signals bouncing and echoing in the same space—a phenomenon known as multipath. The more channels you cram into that space, the uglier multipath effects become.

With BLAST, engineers can turn this problem into an advantage. Instead of restricting the number of transmissions at a single frequency, engineers deliberately stack up transmitters and receivers. That means more multipath effects. But incredibly, it also means better, clearer signals for everyone using the technology.

BLAST works by breaking up the message to be transmitted—whether it's a cell-phone call or a compressed music file—and parceling the pieces among two or more antennas clustered close together. The transmission is then beamed to a similar array of receiving antennas. Along the way, the signals bounce around, scatter, and get scrambled. But that doesn't faze the smart signal-processing chips on the receiving side. How antennas pluck bits out of the brew, compare them with what neighboring antennas have collected, and then piece the original transmissions back together

HONEY FROM THE BUZZ?

With explosive increases in the use of digital cell phones, pagers, Palm devices, and other wireless Internet appliances, cities will soon be raucous swarms of radio signals. A technology called BLAST, from Lucent Bell Labs, capitalizes on that cacophony—and boosts transmission without wasting bandwidth. Using low-cost electronics, BLAST breaks messages into pieces, beams them from multiple antennas into the sea of signals, and reassembles them on the other side.

MAKING WAVES IN L.A.: *Signals from antennas (red) bounce around buildings*

Dewar's PROFILE

Adam Sherman, Bryce Roberts & Nate Siegfried
The upstarts at Igneous Skis

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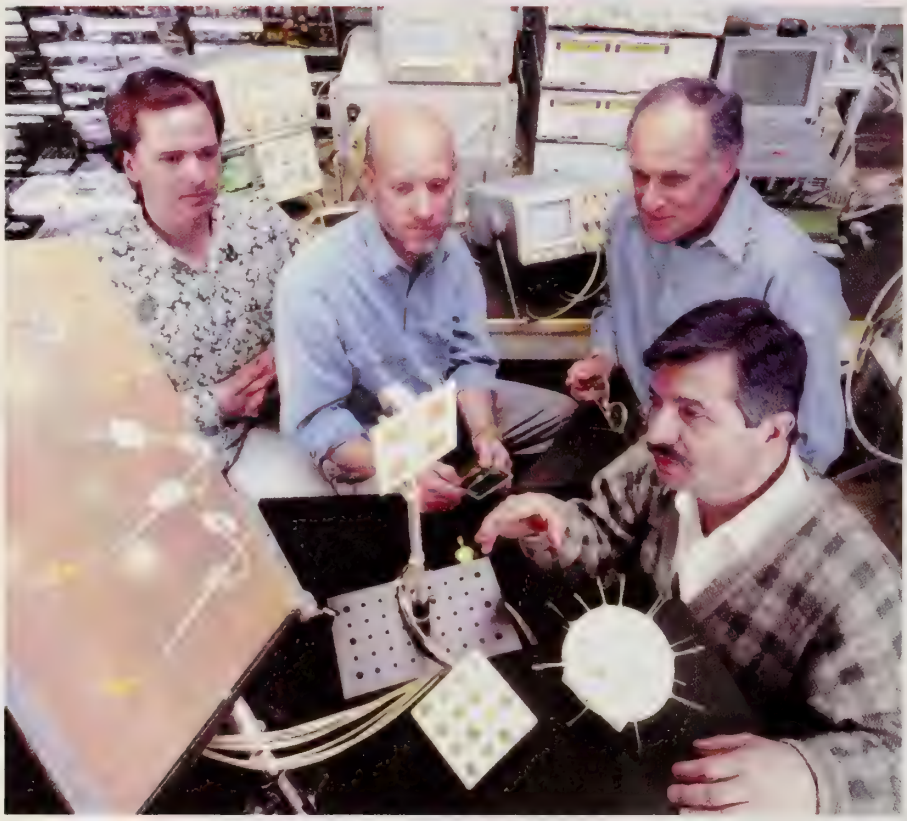

FOSCHINI (TOP RIGHT) WITH BELL LABS CO-WORKERS WHO DEVELOPED BLAST

"With 20 antennas, you have the same power and bandwidth [as with one], but you can get 20 times the normal capacity," says Gerard Foschini, the Bell Labs researcher who developed the basic principles. "BLAST is revolutionary," says Joseph M. Kahn, a professor of electrical engineering at the University of California at Berkeley. "When you talk about how to increase capacity, this is the most promising approach."

BUNDLES. This technology is well-suited to local area networks in offices and homes, where it could replace the tangle of cables that snake behind desks and under floors. Lucent will also test BLAST outdoors, in fixed-wireless environments. But the biggest market could be in mobile communications. Lucent managed to get aspects of BLAST technology incorporated into U.S. standards for next-generation mobile phones. The company also hopes to bundle BLAST with cell phone equipment it ships to overseas service providers.

Competitors and skeptics in academic circles question whether BLAST is really suited to the world of mobile phones. Tiny cell phones aren't likely to brandish more than one or two antennas, at the most. And in a fast-moving vehicle, Bell's fancy chips will have to work overtime to extract and interpret the signal data. "This will require a tremendous amount of signal processing," says Babak Daneshrad, a professor of electrical engineering at the University of California at Los Angeles, who has a Defense Dept. grant to develop circuit techniques to address this bottleneck.

The biggest market for the technology could be in cell phones. But skeptics wonder whether BLAST will work in fast-moving vehicles

Lucent must also contend with other players that are rushing products to market. Just one week after Lucent unveiled BLAST, Cisco announced plans to trade $157 million in stock for a tiny spin-off from Stanford University called Clarity Wireless Inc., which was on the brink of commercializing high-speed wireless data technology that bears a close affinity with BLAST. Cisco has since rolled out a line of fixed-wireless products, offering business customers Internet access at a blistering 50 megabits per second—far faster than most cable modems.

A second Stanford spin-off with space-time technology, called Gigabit Wireless Inc., has also entered the fixed-wireless fray, founded by Arogyaswami Paulraj, a prominent Stanford electrical engineering professor. Paulraj hopes to have high-speed products on the market early next year. His te nology is now being evaluated Sprint, among others.

In the short term, disputes over tellectual-property rights could da en some of this excitement. Research at Stanford, Lucent, and AT&T all cl paternity for key pieces of the sp time processing used in BLAST. Luc has patented many of the specifics. Paulraj and Stanford claim patents the basic idea of multiple anten transmitting to multiple receivers. Ci also has patents through Clarity. A AT&T holds the rights to some spa time techniques used to code signals mobile phones.

RADICAL. If history is any guide, st gering sums of money will change ha as these disputes shake out and bro band wireless emerges from infancy you doubt it, consider the fresh fortu amassed in fiber-optic communicatio Breakthroughs at university engineer labs and at Bell Labs over the l decade led to radical new techniq for amplifying optical signals and sp ting pulses of light to squeeze more pacity out of glass fibers. Then, as n patent applications flooded into Wa ington, professors fled universities optical startups, venture capitalis placed frantic bets, and market valu for teensy companies with names su as Optical Networks, Qtera, E-Tek D namics, and JDS Uniphase rocketed in the multibillions.

Wireless promises a repeat perf mance. But it's too early to say whi companies will attract all the ne wealth. When it comes to marketi wireless broadband technology, Cis probably has a leg up. But for all its I ternet routing expertise, it has little e perience managing wireless complexi "The wireless world is a hall of mi rors—full of unexpected events," sa Richard Howard, Bell Labs' director wireless research.

Even these uncertainties, howev have a strangely familiar feel. "We m be right where fiber communicatio were three or four years ago," mus Sprint's James Hannan. Ladies and ge tlemen, place your bets.

By Neil Gross in New Yo

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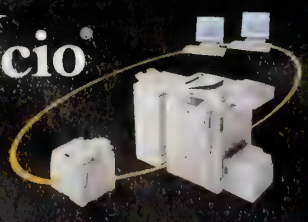

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MEDICINE

THE KIDS ARE NOT ALL RIGHT

Adoptees from overseas often get inadequate medical care

Tuberculosis rarely invades the quiet farm communities of North Dakota. But in one town in 1998, the disease became epidemic. Public-health investigators moved quickly to confine the outbreak. Of 276 people tested, 56 had positive skin tests for tuberculosis; 118 received preventive treatment. The source? A 9-year-old from the Marshall Islands who infected household members and classmates.

Clearly, this boy should have been screened immediately after entering the U.S. But he wasn't: A skin test taken upon arrival was never read, letting his infection simmer dangerously for two years before his seriously ill legal guardian sought treatment.

The story should serve as a cautionary tale, says Dr. Laurie C. Miller of the New England Medical Center. She has appealed to doctors to school themselves about the medical issues related to the thousands of foreign adoptees brought to the U.S. each year. "A surprising number of internationally adopted children do not receive proper evaluation and follow-up," Miller wrote in the Nov. 11, 1999, issue of *The New England Journal of Medicine*.

But that might not continue for long. Miller and other pediatricians who specialize in adoption medicine have g public by applying to the Ameri Academy of Pediatrics board for rec nition as a "section." Section sta would enable the specialists to use academy's name to educate their pe There'll be even more attention in Ap when the *Annals of Pediatrics* devo an entire issue to adoption medicine.

In the past decade, 105,128 adopt children from 86 countries have ente the U.S. The impoverished backgrou of these kids—the bulk of whom co from China and Russia—can mean m adies American doctors rarely see.

Children from Chinese orphanag for example, often suffer from rickets vitamin D deficiency. Their physical s (due to genetic factors) is so mu smaller than U.S. norms that they quire "China only" growth charts. Le poisoning from continued reliance leaded gasoline and coal is another pro lem, along with roundworms and Gia dia. And because so many Chinese ba girls are abandoned, experts are oft needed to determine their ages.

LOOKS DECEIVE. Russian children ha China's problems—and more. These clude malnutrition and exposure to which is epidemic in Russia. Some al arrive with Russian diagnoses of pu zling conditions such as "perinatal e cephalopathy," which Western medici views as nonexistent.

Another dilemma for Russian ch dren: Resemblance to their middle-cla U.S. parents can catch doctors o guard. "If a family walks in with a chi dressed up beautifully, pediatricians b lieve this child has the diseases an o dinary suburban child would have," sa Dr. Dana E. Johnson of the Universit of Minnesota's International Adoptio Study Center.

> "We've had doctors forget to check for parasites," says Dr. Laurie Miller, who is working to educate pediatricians, "and the kids are loaded with them"

ARONSON (ABOVE): ADOPTEES THRIVE ONCE ILLNESSES ARE ADDRESSED

The consequence is that importan problems are often missed. "There ar kids who have been in this countr three or four years and have neve been checked for hepatitis B, hepatiti C," says Miller of the New Englan Medical Center. "We've had doctors for get to check for parasites, and the kid are loaded with them." Parents' sto ries confirm these points. "They hadn' a clue," Lynn Franco of Columbus

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Ohio, says of the pediatricians who wouldn't accept that there was something seriously wrong with her underweight son from the Dominican Republic—until she marched in with his diaper holding a six-inch-long parasite. "I don't think I'll ever get that out of my mind," Franco says.

Others have similar stories. Kathleen Johnson of San Diego had to talk to three associates in her pediatrics practice to get her Russian daughter's scabies treated as something other than a skin rash. And Lou Klaric of Falls Church, Va., is still searching for a doctor to treat her son's high count for helicobacter pylori, the bacteria—widespread in Russia—that cause ulcers. Says Klaric: "They think we're 'overwrought.'"

On the other hand, there are success stories. Andrei Chevalier, a Romanian baby adopted at 21 months by Mary and Craig Chevalier of Londonderry, N.H., had rickets, TB exposure, and orphanage behaviors like head-banging and sensitivity to touch. The Chevaliers say their pediatrician consulted with Dr. Miller in Boston, and today, at 36 months, Andrei—though still in physical therapy and intensive speech therapy—"looks wonderful."

MAKING THE ADJUSTMENT. Physical illnesses are not the only problems adoptees face. The adoption community fairly crackles with disagreement about adoptees' emotional-behavioral problems and cognitive disabilities. These can be particularly acute among Eastern European children who have languished in orphanages. Experts believe the cause is neurologic damage, possibly from lack of stimulation during infancy. Prenatal environmental exposures and malnutrition also may figure in.

Science hasn't supplied definitive answers. But there is growing agreeme that the oft-cited "reactive attachme disorder" (RAD)—failure to bond with parent—that was believed to be ra pant in orphanage children is actua rare. Instead, experts such as psychi trist Charles H. Zeanah of Tulane U versity's School of Medicine, who edit *The Handbook of Infant Mental Heal* believe certain disturbing behavio such as purposeless rocking, are far le serious than RAD. These problems, says, "get better over time."

The nation's leading dozen or so i ternational adoption specialists are bas at centers in Boston, New York, A Arbor, Mich., Minneapolis, Pittsburg Cincinnati, and Seattle. They have the own newsletters, private computer list and Web sites. Parents usually find t specialists through adoption organiz tions. Many such organizations advis that specialists review the children' medical records. Once the children ar rive in the U.S., the specialists perform thorough screenings and communicat with the parents' pediatricians abou follow-ups and referrals.

With the growing availability of such care, most international adoptees are thriving. "The kids are great, the out comes fabulous, and the families happy," says Dr. Jane Aronson, an adoption specialist in Mineola, N.Y., who has seen 800 adoptees over seven years. "The kids are adjusting, making friends, or having the usual learning problems that 10% of the population can have," Aronson says. The effort to spread the word about adoptees' peculiar medical and psychological problems is starting to succeed. For parents, that means peace of mind. For their children, it means a far brighter future.

By Joan Oleck in New York

Coming to America

The leading countries sending children to the U.S. for adoption and some of their typical health problems:

	TOTAL U.S. ADOPTEES 1990-99	HEALTH PROBLEMS
RUSSIA	19,605	Rickets, malnutrition, prenatal alcohol developmental lags, scabies, Giardia, TB exposure*
CHINA	18,751	Rickets, malnutrition, anemia, asthma, lead poisoning, hepatitis B, TB exposure
SOUTH KOREA	18,521	Korean children, who are raised in foster homes, are generally as healthy as U.S.-born children
GUATEMALA	5,529	Parasites

* Romania, which with 5,763 adoptions is sending country No. 4, has health problems identical to Russia's

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USING CHICKEN FEED IN THE WAR ON SUPERBUGS

ANTIBIOTIC-RESISTANT BACTERIA are becoming a huge threat. Although scientists have long speculated that antibiotics in animal feed foster the evolution of these superbugs, farmers have been loath to stop using drugs. Not only do antibiotics protect animals from disease, they also seem to promote growth, so farmers can deliver animals to market quicker.

Now, there's a new option from Mark E. Cook, an animal scientist at the University of Wisconsin at Madison. He has found an antibody that strengthens the immune system, thereby reducing the need for drugs—without slowing growth. Cook's research with chickens shows that antibiotics actually don't spur growth. They just preclude a side effect of the bird's immune system: Invading bugs trigger white blood cells to release chemicals, called cytokines, that suppress the appetite.

To block this process without impeding the immune system's ability to battle disease, Cook has created a special molecule that mops up the cytokines. When his compound is added to chicken feed, birds grow just as fast as those getting antibiotic-laced feed. *Nicole St. Pierre*

PLUG-IN POWER FOR ELECTRIC VEHICLES

THE BIG HANGUP WITH ELECTRIC VEHICLES, APART FROM the sheer size and cost of the batteries, is recharge time. Few drivers are willing to be stranded at a service station for several hours while the battery recharges. But what if recharging were just as fast as refueling?

By yearend, Metallic Power Inc. expects to ship prototypes of just such a system—but not to Detroit. Chairman Jeffrey A. Colborn is too savvy to bet his Carlsbad (Calif.) company on that long-term shot. Instead, he'll first go after forklift trucks, golf carts, lawn mowers, and electric wheelchairs. Then will come backup and portable power supplies for trucks, recreational vehicles, homes, small businesses, and construction sites.

What Metallic Power has developed is a unique fuel cell. In a bit more than a cubic foot, it packs enough punch to deliver 2 kilowatts—that's about what all the appliances in a typical home consume—for two hours. The projected price? Between $1,500 and $2,500, or roughly $1,000 per kw. For such heavy-duty applications as forklifts, the units can be ganged together.

What sets the system apart from other fuel cells is that its source of energy is a rechargeable "battery." It runs on cartridges filled with little zinc pellets suspended in potassium hydroxide. Plug in a cartridge, and the zinc reacts with air to produce zinc oxide, generating electricity in the process. When all the zinc has been converted, just slide in a new cartridge—and stick the old one into the company's FuelMaker box, which uses regular electricity to turn the zinc oxide back into pure zinc.

There's still no free lunch, though. Rejuvenating the cartridges takes 50% more power than they can deliver in the fuel cell. □

INNOVATIONS

■ People with impaired hearing will soon be able to use digital cellular phones with existing text-telephone (TTY) devices. TTY systems have a small display for messages and a keyboard that generates a different tone for each letter. That adds a lot more tones to the 10 used for dialing, so the pattern can be harder to interpret digitally. So researchers at Lucent Technologies Inc.'s Bell Laboratories developed error-correction software to ensure that TTY keystrokes are transmitted and received correctly. Bell Atlantic Corp.'s cellular operation plans to make the service available this year, and Lucent is offering the technology free to other cellular companies.

■ Depriving tumors of copper, which they need to form new blood vessels, seems to check cancer's growth, according to a report in the January issue of *Clinical Cancer Research* from some University of Michigan researchers. Only a handful of patients have been treated so far, using an inexpensive copper-purging compound called tetrathiomolybdate, or TM. But the initial results are promising. By keeping the body's level of copper at 20% of normal, all cancer growth stopped in five advanced-cancer patients, with no apparent side effects to date. Now, the researchers hope to expand their investigation by testing TM on 100 patients with smaller tumors and watching for long-term side effects.

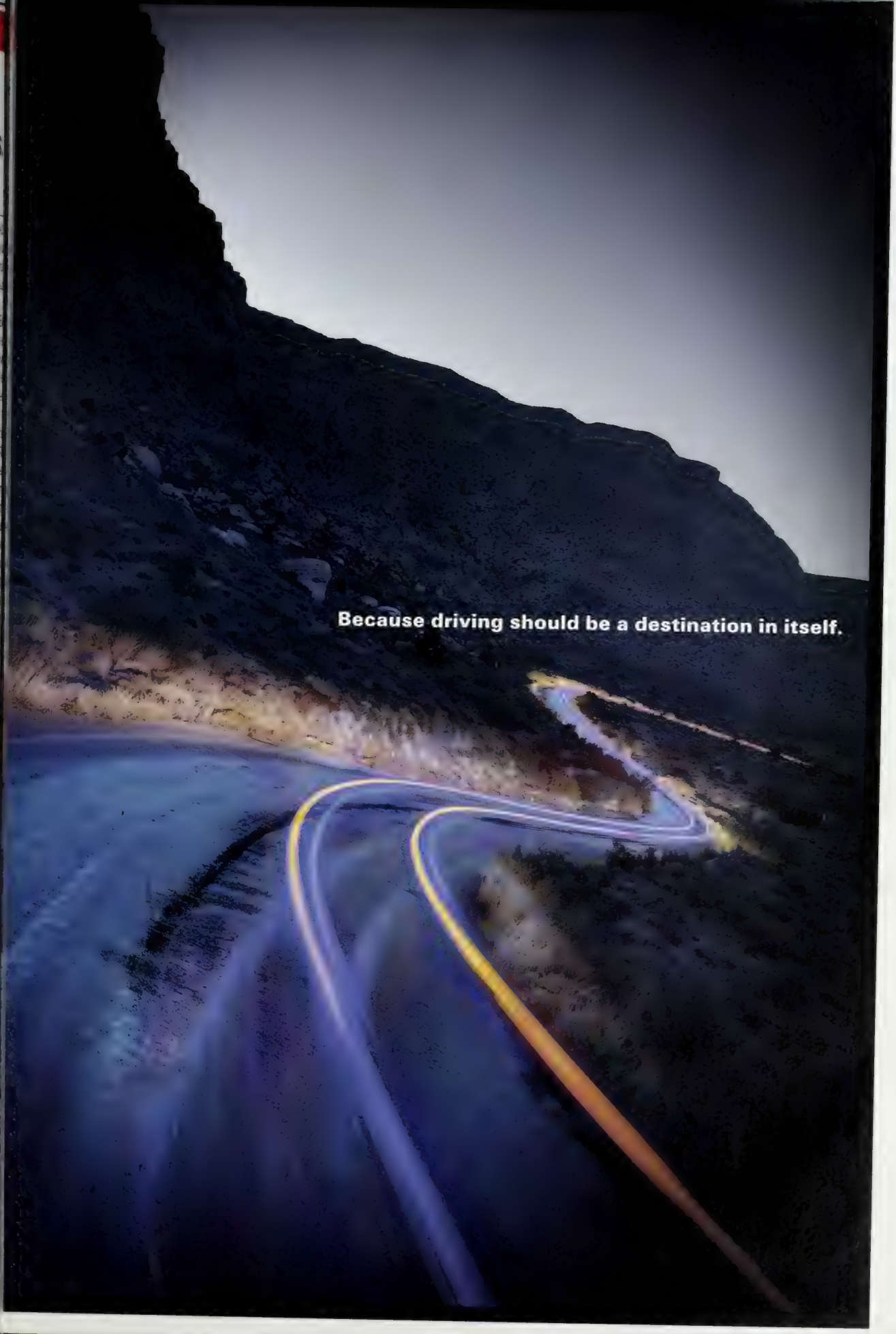
YESTERDAY'S TIRES, TODAY'S RAILROAD TIES

STRETCHING ACROSS THE PLAI and tunneling through mou tains, railroads helped uni the U.S. in the 1800s—a have played a key role transportation ever since. B those twin ribbons of ste couldn't carry freight and pa sengers without cross tie And those hunks of oak are major cost. Each year, U. railroads buy close to 20 m lion ties, at upwards of $ each, to replace rotting ones

On Jan. 28, Primix Cor started production of a hig tech tie that promises to slas the cost of railway maint nance—and strike a maj blow for the environment. Th Atwood (Ind.) company's t has a steel-beam core fille with concrete, and this 24 pound structure is then e

cased in 80 pounds of ground up scrap tires and discarde plastic bottles, held togethe with a special binder, or glue

Independent testing show that the new tie is at leas 230% stronger than creosote soaked wood ones, says chie engineer Carl J. Fischer, "s the railroads can use fewer tie per mile." Moreover, they coul last 60 to 90 years, vs. 5 to 3 years for wood. That make the $67 price tag look like bargain. And mountains o scrap tires could get a new lif while more trees stand tall while longer. □


Because driving should be a destination in itself.

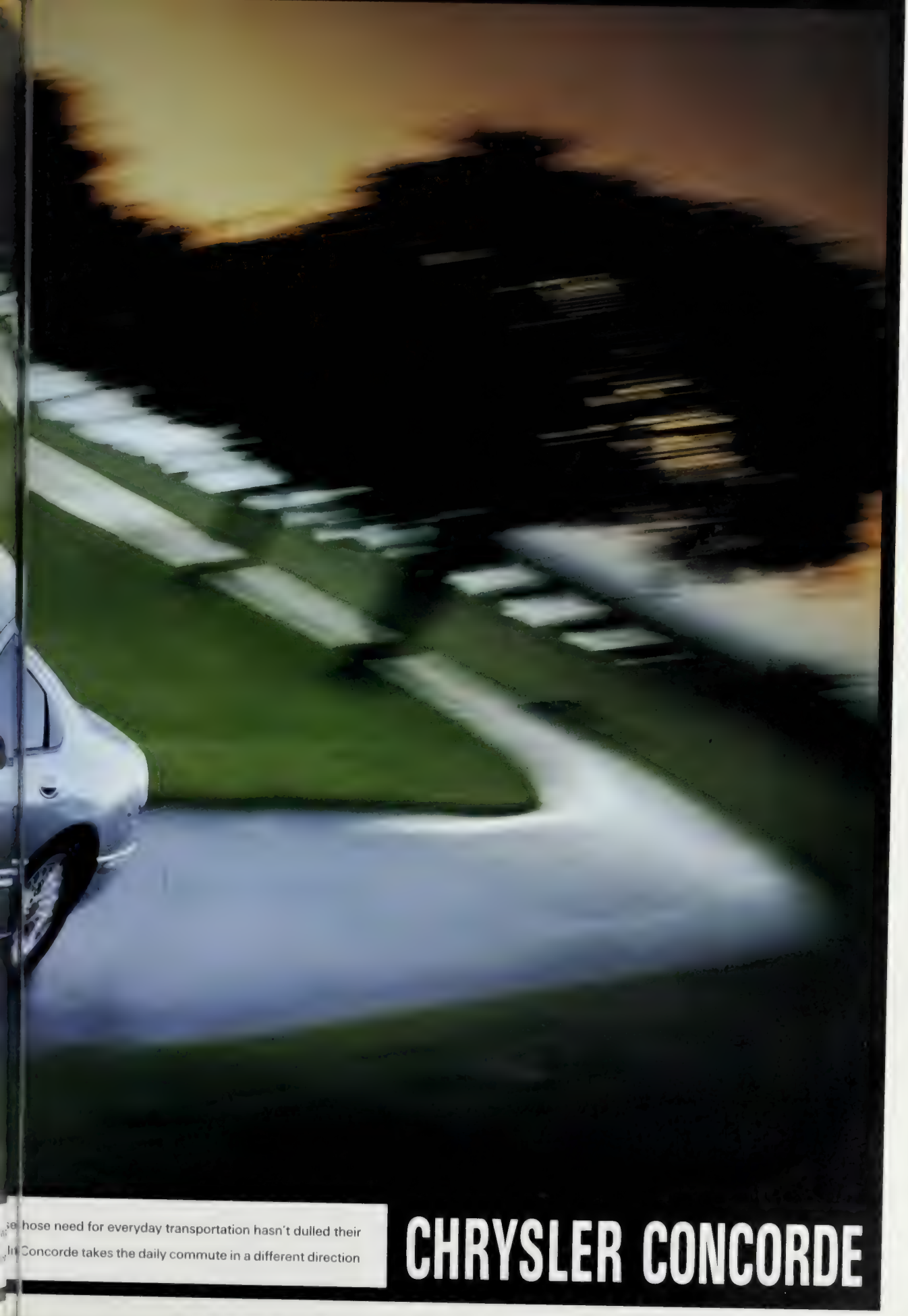
Because you can be comfortable and exhilarated at the same time.

Its breathtaking design creates a high level of expectation. Inside, the promise is fulfilled by elegant Swiss watch-like instrumentation, pc-
even before you turn the key and feel the high-output 3.5 liter multi-valve engine come to life. But it's on the road that Chrysler LHS best fre-

va power leather-trimmed front seats and a host of premium amenities. All this
shers and engineers' uncommon notion: A luxury sedan needn't be sedate.
CHRYSLER LHS

Because your car should make you feel something.

It has four doors and a more-than-spacious interior. That's where its similarity to other full-size sedans ends. Chrysler Concorde LXi was
desire for something out of the ordinary. With inspired cab-forward design, low-speed traction control and a suspension tuned to enhar


hose need for everyday transportation hasn't dulled their
Concorde takes the daily commute in a different direction
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, s the journey were a bit longer.

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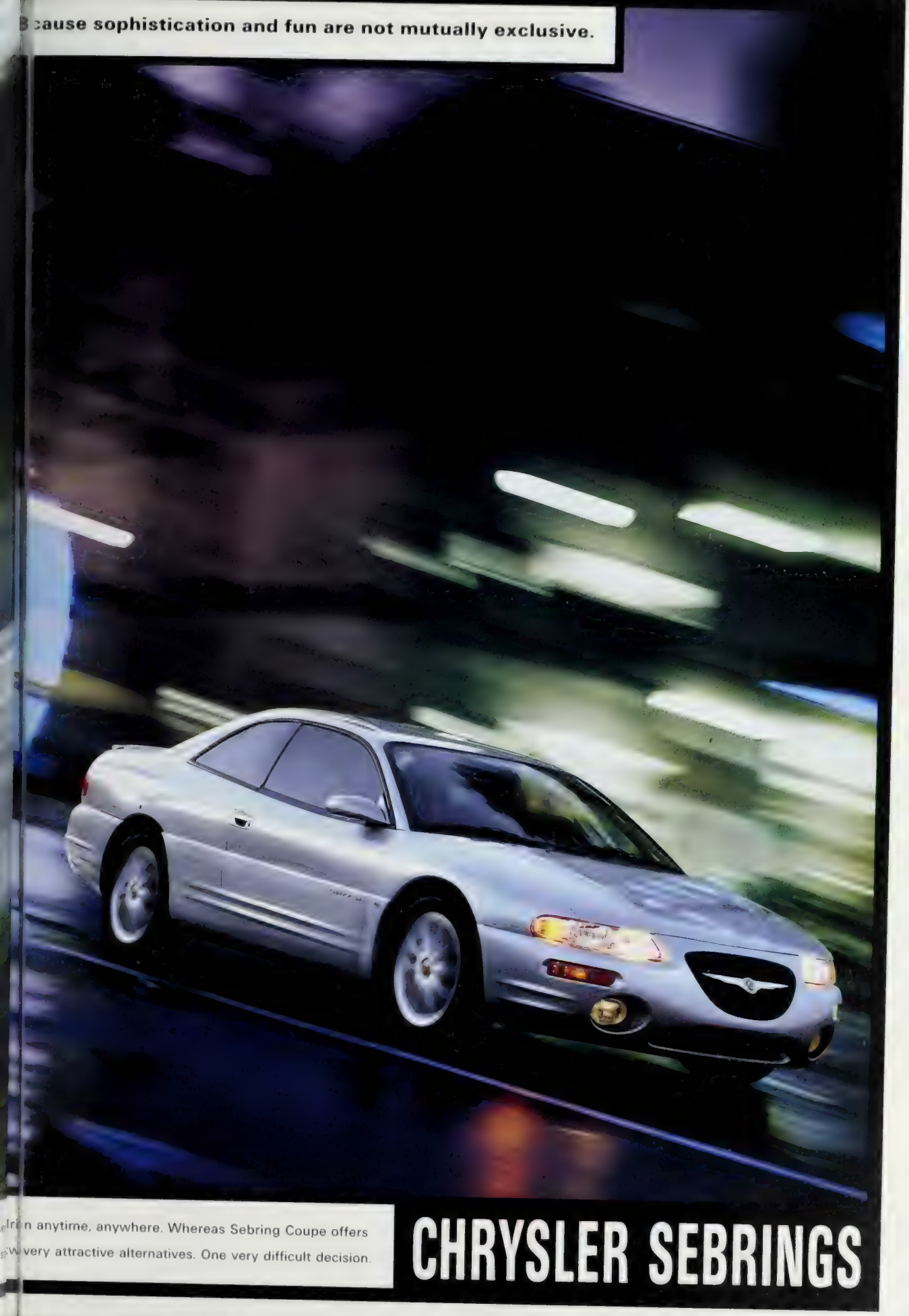
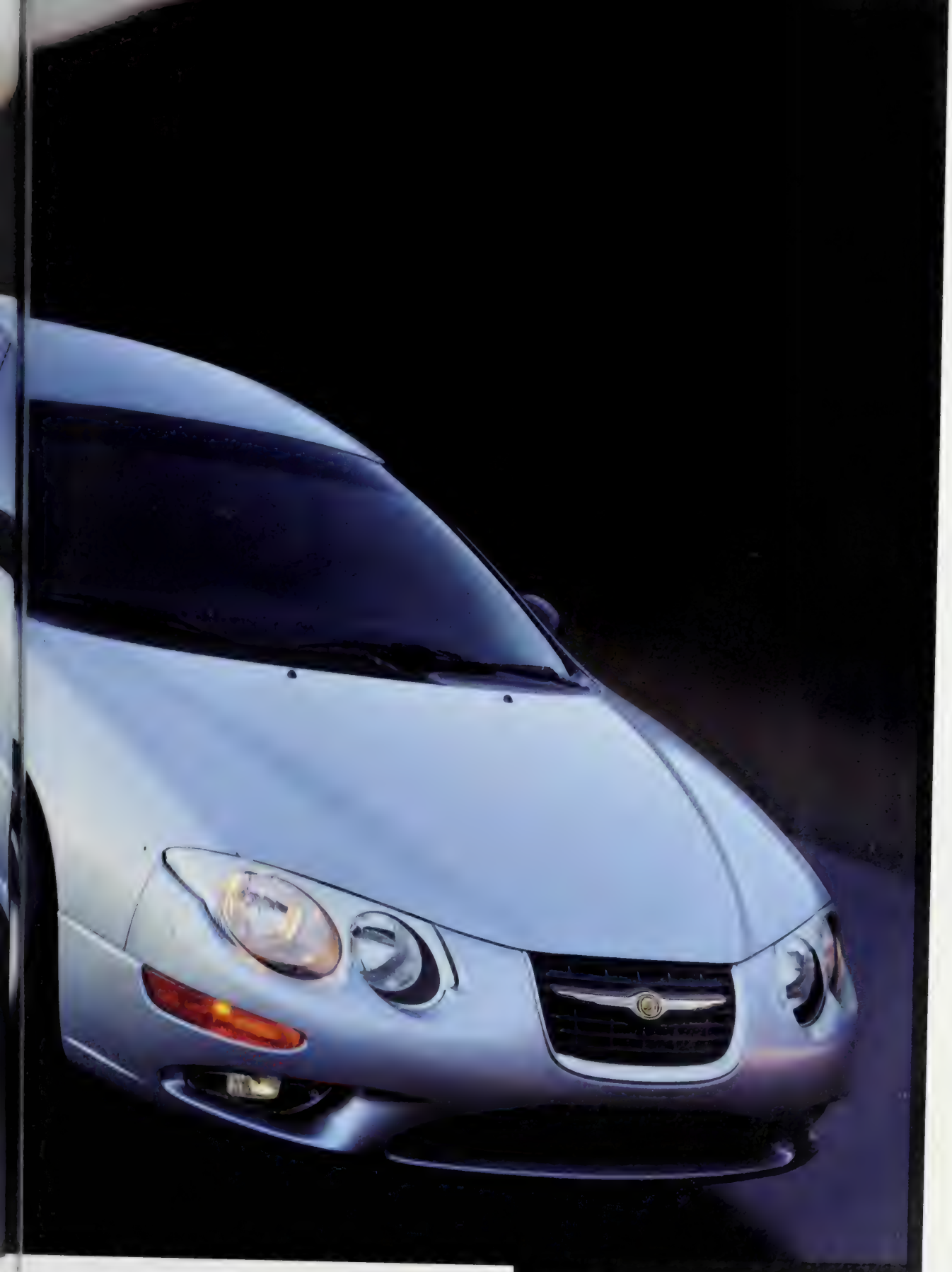
While the sun may not shine 365 days a year, Sebring Convertible does. Because it was engineered from its tight-sealing, double-layer tor
an altogether different sort of driving exhilaration: Its refined looks conceal a multi-valve V6 and race-inspired independent suspens


Because sophistication and fun are not mutually exclusive.
drive anytime, anywhere. Whereas Sebring Coupe offers
two very attractive alternatives. One very difficult decision.
CHRYSLER SEBRINGS

Because even sheet metal can have a soul.

Its ancestors conquered Daytona, shattering conventions as they broke speed records. More than 40 years later, the legend of the original
all-aluminum 253 horsepower engine that is the most powerful of any sports sedan in its class. And, while 300M shares a bloodline

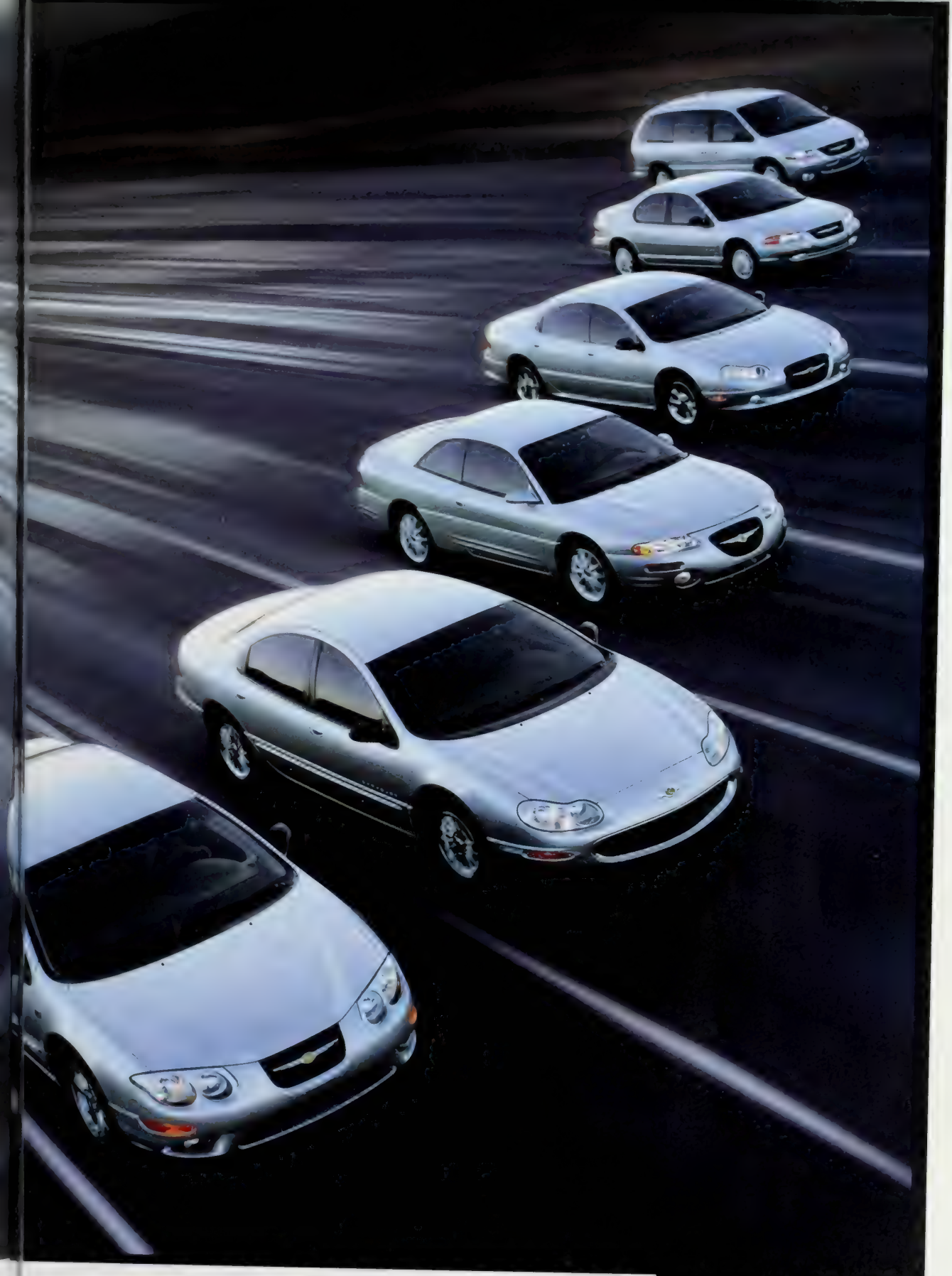


ys as never faded. That spirit is intact in the 300M, reverberating from an
of the past, it shares its aggressive design with nothing else on the road today.

CHRYSLER 300M

These are the ideas that drive everything we do at Chrysler.

At Chrysler, we have a clear and simple mission: to build cars for people who love to drive as much as we do. We believe passi
sports sedan. Breakthrough design, inventive engineering, exceptional performance: It's not any one of these things. It's all of them



ould be able to experience that just as strongly in a minivan as in a high-performance
right: Sebring Convertible, 300M, Concorde, Sebring Coupe, LHS, Cirrus, Town & Country

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ROFILES

THE NEUPERT TREATMENT AT DRUGSTORE.COM

ow a former Microsoft hotshot plans to keep the No. 1 Web pharmacy out front

Three times Peter Neupert told venture capitalist John Doerr that he absolutely, positively was not interested in leaving Microsoft rp. to take the helm of online pharcy drugstore.com Inc. But then Do:—unaccustomed to taking no for an swer and eager to harss Neupert's legendary insity—took a friend's ade. He asked to meet with upert's wife, Sheryl, forrly Microsoft's chief reiter. "Recruiting Peter ant recruiting her as ll," says Doerr, a partner th Kleiner Perkins Cauld & Byers. "She wantto make sure that this einer crowd were honore characters. Somehow, passed muster." Neupert epted Doerr's fourth job er.

So far, Doerr's tenacity s paid off. More than ilding yet another e-comrce store, Neupert is ing to unravel one of the st complex markets in of retail—prescription armaceuticals. Through obsessive attention to tail, carefully crafted ategic partnerships—inding a pivotal $105 mill co-branding deal with azon.com announced on n. 24—he has powered company into a formible lead in the online lth and beauty products rket. That sector is exted to swell from $440 llion at the end of 1999 to $22 billion 2004. From a business plan with $3 llion in venture backing just 18 nths ago, Neupert has created the .1 online drugstore with $200 mill in financing, 430 employees, and ,000 customers.

Good news, right? Not really. Neupert is under more pressure than ever—so much so that he sometimes clenches his jaw tight enough to crack fillings, even teeth. Last summer it appeared that he had overcome one of the biggest roadblocks to building an online drugstore: the ability to fill prescriptions covered by insurance. He sold a 25% chunk of his company to drugstore-chain Rite Aid Corp., giving the online upstart access to Rite Aid's insurance business. But as Rite Aid's finances turned sour in the fall, the drugstore chain put its insurance unit up for sale—casting a cloud over drugstore.com's deal. Neupert says there is no need to worry, but analysts fret that he could lose access to the 50 million insured customers that Rite Aid handles. That could take a big toll on drugstore.com's prescription business, which represents roughly half the company's revenues.

NEUPERT: *A relentless focus on detail is paying off*

INSTANT LEAD. That's why Neupert is working to grow other parts of his business. On Jan. 11, he shelled out $34 million in stock to buy cosmetics site Beauty.com, giving his Bellevue (Wash.) company an instant lead in the pricey department-store cosmetics market. That's an important move to continue attracting its most loyal customers—working women—and to head off competitors PlanetRx, CVS, and Wal-Mart Stores, who also are broadening their online selections beyond drugs. The plan: integrate the two companies' shopping baskets. Then, by creating a "health and beauty" tab on Amazon's opening screen, drugstore.com gets access to the Web retailer's 16 million customers and $30 million, boosting Amazon's stake in the company to 28%.

A lot is riding on the Beauty.com deal, drugstore.com's first acquisition

You'd think the dual deals would add some helium to drugstore.com's stock. But the company's share price has been acting as if it's on the wrong medication. At 30, it's trading near an all-time low

of 27 after tumbling from a high of 70 last July. With 1999 revenues of $35 million and losses of $116 million, Neupert isn't expecting the company to turn a profit for three to six years. "The reason there is such huge opportunity in this market is that it's so complex nobody's been able to tame it," says Evie Black Dykema, online retail analyst for Forrester Research Inc.

NEUPERT'S COOLNESS UNDER FIRE COMES FROM HIS FATHER

Not that Neupert has to grapple with this alone. His wife, Sheryl, 42, is simultaneously an alter ego and business partner—not to mention sounding board, chief adviser, and personal cheerleader. Even Doerr, who says that Neupert was "an inspired choice" for the job, didn't realize how much of a twofer he was getting. Once on board, the Neuperts set up shop above the garage of the sprawling 1929 mansion they purchased half a mile from the estate of Microsoft founder William H. Gates III. Sheryl immediately shifted gears from remodeling the house to building drugstore.com's workforce. When the fledgling company needed a whole team of pharmacists for its Texas distribution center, she spent days grilling pharmacy students at the University of Texas. Earlier this month, an exhausted Neupert asked her where she wanted to go on vacation during their daughters' winter break from school. Sheryl suggested a visit to drugstore.com's new 290,000-square-foot distribution center in New Jersey. "I was thinking something a bit more tropical," Neupert dryly replied. They still haven't decided where to go.

TURNING PURPLE. Neupert is turning drugstore.com into a family affair. Once purple was selected as the corporate color, Neupert's wardrobe filled with purple shirts, purple ties, and purple socks. He had custom leather logo jackets made for the whole family, including six-year-old Kelly and 10-year-old Katie. The old vanity plates on his 1996 Land Rover were replaced by new plates that said DRGSTR. And when he buys a new Land Rover this year, he'll have it painted purple. Neupert and Sheryl also can be seen riding their purple tandem bicycle through Seattle. He even persuaded Doerr to wear a purple shirt and tie one day a week for 10 months.

Doerr wasn't a bit surprised by this. Neupert is legendary for being gung-ho, no matter the challenge. It was Neupert who headed Microsoft's development efforts to build the OS/2 operat-

Peter Matthew Neupert

BORN Mar. 6, 1956 in Portland, Ore.

EDUCATION Colorado College, BA Philosophy, 1978; Amos Tuck School of Business, Dartmouth College, MBA, 1980.

JOB President and CEO, drugstore.com.

CAREER HIGHLIGHTS Built inventory control database for family plumbing supply business in 1981. Joined Microsoft in 1987, heading up the OS/2 development team. Three years later he took over Microsoft's operations in the Far East, including establishing the first Asian R&D laboratory. Negotiated Microsoft's deal with NBC, creating MSNBC. In 1998, he took drugstore.com from concept to launch in seven months.

FAMILY Youngest of six children. Divorced once. Met his current wife, Sheryl, a former Microsoft chief recruiter, in 1987. She refused to date anyone at work, but Neupert coaxed her into making an exception, and six months later they were married. "We're very good complements," she says. "He likes to think. I like to make things happen." Father of three daughters and a son.

FAVORITE PHILOSOPHERS Plato, Martin Heidegger, and Ludwig Wittgenstein.

PEOPLE WHO HAVE MOST INFLUENCED HIM His late father, Karl Neupert, Bill Gates, Steve Ballmer.

FAVORITE SAYINGS "Time is the enemy" and "Do it, try it, fix it" (admittedly stolen from Microsoft CEO Ballmer).

NICKNAME Captain NeupKirk, given to him by *Star Trek* fans on the OS/2 development team and resurrected when his MSNBC office featured a command chair surrounded by TV consoles.

FAVORITE COLOR Once purple was selected as the corporate color, his wardrobe filled with purple shirts, purple ties, and purple socks.

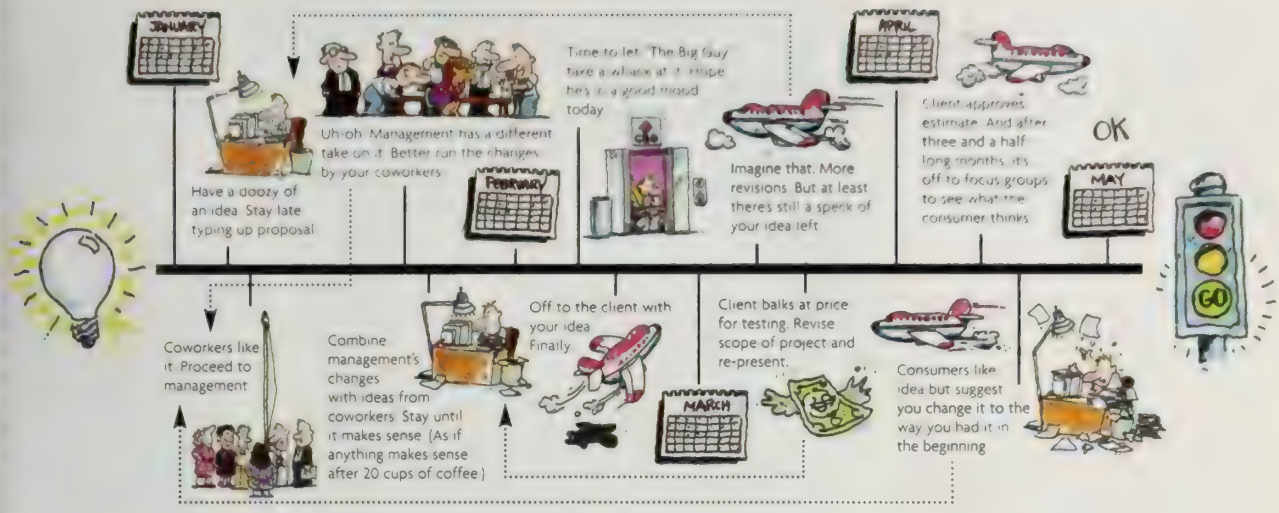
ing system with IB And it was Neupe who guided the so ware giant into the d with NBC. His ni name, Captain Neu Kirk, given by *St Trek* fans on the o development team, ev followed him to MSN because his office ha command chair su rounded by TV consol

That Captain Ki cool-under-fire tr comes directly from late father—who gra ated at the top of U.S. Naval Acade class in 1933. Karl Ne pert commanded a s during World War that survived a run with five kamikaze lots. After the war, built a plumbing-sup business, Consolidat Supply, into one the Pacific Northwes largest.

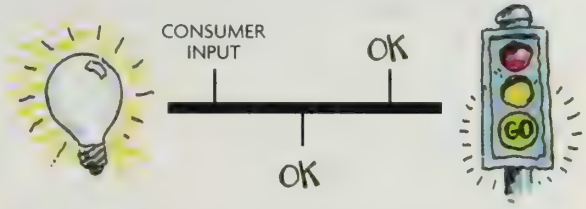
When his father came terminally with cancer, Neupe dropped out of sch for one year to work the family business. was then that he g his first taste of wh computers could d When Neupert realiz the company's compl inventory lists we stored entirely in his ther's head, he us what he had learned some basic compute science classes to desi a database on Hewle Packard mainframes capable of instar ly tracking hundreds of thousands plumbing supplies and parts.

But Neupert didn't take to the fan ly biz. He stuck to plumbing for only months after he earned an MBA fro Dartmouth's Amos Tuck School of Bu ness. Neupert says his ideas didn't me with the if-it-ain't-broke-don't-fix-it me tality of his siblings. So he struck out his own, first as a bond financier for local bank, then as a chief financial of

OS/2 could have been a career killer, but Neupert went on to run Microsoft in Asia



TRYING OUT YOUR IDEAS ON CONSUMERS USED TO BE A BIG PRODUCTION.



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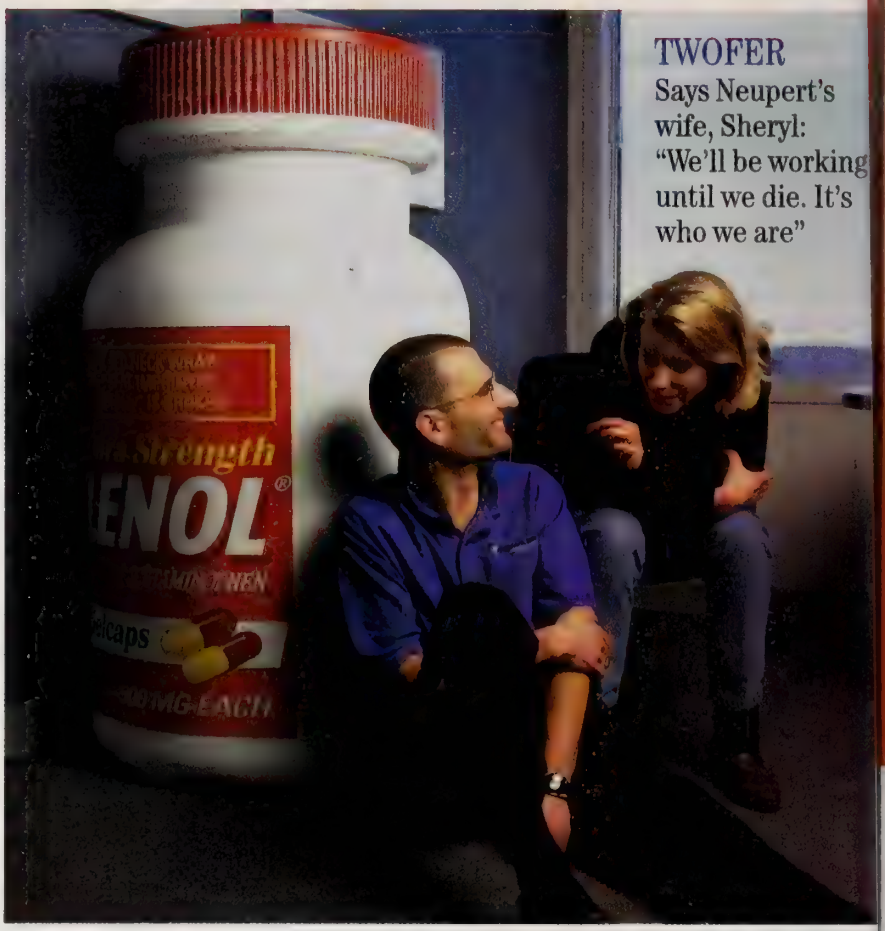
cer at two small software firms. When Neupert joined Microsoft in 1987, CEO Steven A. Ballmer and Gates immediately threw him into supervising development of the ill-fated OS/2. That could have been a career killer. Instead, serious and analytical, Neupert was just the right fit for both the rambunctious software developers he was supervising and for the more staid environment at IBM.

It wasn't until he married Sheryl in 1988 that Neupert began to loosen up. Friends say that Sheryl has helped him see where gut instinct and risk-taking sometimes make more sense than living strictly by the numbers. (Still, she always calls him by the more formal name of Neupert, because "he doesn't look like a Peter," she says.) Says Sheryl of their different styles: "I tend to be intense, passionate, high-energy, and impatient. He's more calm and cool and analytical." Amazon.com CEO Jeffrey P. Bezos says Neupert is tops at asking questions and getting to the nut of a problem. "He's a good driller," he says, "Lather, rinse, repeat."

Neupert needs all the answers he can get. The deal with Amazon will eat up nearly half his marketing budget for the next three years. While drugstore.com has ridden Amazon's technology coattails from the beginning, it now has bound itself—for better or worse—to Amazon's ultimate fate. Indeed, many analysts believe that drugstore.com ultimately will be taken over by Amazon, even though Neupert insists he's building a big, independent business.

BIG NAMES. A lot also is riding on the success of the Beauty.com deal. Drugstore already had low- to mid-range beauty products in its lineup, but it had hit serious resistance from Estée Lauder and Lancôme, the biggest names in the cosmetics that drugstore.com's key customers buy. Prestige cosmetics makers want to keep a short leash on their brands. But Beauty.com's founders came from inside the cosmetics trade and had managed to land exclusive deals with leading-edge cosmetics makers such as Lagerfeld and Elizabeth Arden. Neupert is gambling that maintaining Beauty.com as a distinctly upscale second site—but melding its online shopping basket with drugstore's—will woo the big names like Estée Lauder and Lancôme into the drugstore fold.

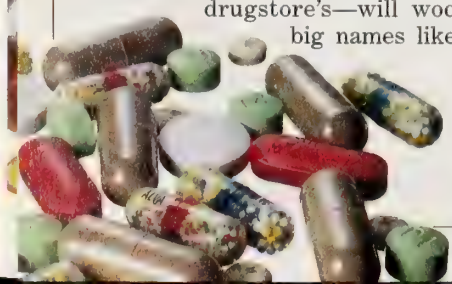


TWOFER Says Neupert's wife, Sheryl: "We'll be working until we die. It's who we are"

Neupert believes the Amazon and Beauty.com deals will put some zip back into drugstore.com's stock. A big part of the problem for drugstore.com and other online pharmacies has been the resistance of prescription-drug insurance claims administrators—called pharmacy benefits managers, or PBMs. Hoping to keep the lucrative online world to themselves but failing to move at Internet speed to lasso it, PBMs have refused to cover prescriptions at most online pharmacies. Rite Aid's PCS Health Systems division, however, happens to be one of the largest PBMs. When Neupert secured his cross-marketing deal with Rite Aid, he also bought a decade of access to PCS insurance claims. He is nonchalant about Rite Aid's troubles. "Our contracts stay in place if they sell [PCS] to a new owner," he insists. But with the PCS unit up for sale, analysts says it's unclear how the relationship will fare.

For Neupert, the race is just starting. Naturally, he refuses to slow down. B the reason may surprise some. It's b cause of his children. "They alread know they're not getting any of t money," he says. "They need to ea their own way in life, so what logic there in letting them see me sittir back?" Neupert believes that h wealth—Microsoft made him and h wife millionaires many times over— best used as a way to buy time wi his family. That's why sometimes h pays thousands of dollars from his ow pocket to charter jets for business tri so he can get home in time to hav dinner with the kids. He an Sheryl believe that there is no lir where work life stops and family li begins. "We'll be working until we di It's who we are," Sheryl says. "It's th way we want our children to see u Find your passion and do somethin good with it." And don't ever take n for an answer.

By Janet Rae-Dupree in San Mate Calif., with bureau reports



Neupert will charter a jet with his own money, if it means getting home faster

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COMMENTARY

By Mike France

ANTITRUST COPS SHOULDN'T POLICE FREE EXPRESSION

Ever since the emergence of the Chicago School of Economics three decades ago, antitrust law has been all about dollars and cents. Unless a merger is apt to increase consumer costs, the Federal Trade Commission and the Justice Dept. will almost surely give it a green light.

But as the antitrust cops prepare to review the AOL-Time Warner merger, commentators are proposing a radical idea: that factors other than economics—for example, the protection of free expression—should be looked at in scrutinizing media deals. It's a notion that's appealing in theory but ugly in practice.

Specifically, many media critics would like the antitrust agency that gets the AOL-Time Warner assignment to take into account whether media concentration threatens the diversity, independence, and integrity of the American press corps. "The merger of these two behemoths [has] deep implications for democracy," editorialized *The Nation*. "We need far-ranging discussions of how antitrust policy should apply to these hydra-headed media creations."

BIG IDEA. Supporters of this view note that the creators of the Sherman antitrust act cared about much more than economic efficiency. They were also worried about the cultural and political implications of mergers. From the 1890s until the mid-1970s, antitrust law was widely used as a tool to preserve local ownership of important industries, protect small businessmen, and in some cases to defend free expression. In a landmark 1945 ruling, for example, the Supreme Court forced the Associated Press to drop a rule that only one paper in any one community could belong to the news-gathering service.

For the first time in years, it's possible to imagine that antitrust might be used in an expansive way again. Under the leadership of Robert Pitofsky and Joel I. Klein, the FTC and Justice have both shown a cautious willingness to expand the law in new directions. Their suits against Intel and Microsoft, for example, were both based on innovative interpretations of traditional antitrust doctrine.

Meanwhile, Hawaii Attorney General Earl I. Anzai in October filed a suit to block the sale of the afternoon *Honolulu Star Bulletin* to the morning *Honolulu Advertiser*. Arguing that the deal would eliminate "a significant forum for the airing of ideas and thoughts," he has won a preliminary injunction postponing the sale. His moves have inspired a group of San Franciscans to file a similar antitrust suit to stop that city's afternoon *Examiner* from buying the morning *Chronicle*.

The sentiments underlying these lawsuits are easy to understand. As more independent news organizations disappear, there is a genuine threat to the quality of journalism. But as important as the fight against media concentration may be, the antitrust laws aren't the right tool for the job.

It's much harder to analyze whether a particular merger will injure free expression than it is to evaluate whether such a deal will lead to, say, higher prices. While regulators have developed sophisticated tools for predicting the economic impact of corporate combinations, there's no way of measuring how badly a given deal hurts the marketplace of ideas. "We don't have a particularly good calculus for taking variables like free expression into account, or for weighing the trade-off between an injury to free expression against a gain in efficiency," says George Washington University Law School antitrust professor William E. Kovacic.

As a result, it's all but impossible to develop objective rules for deciding which media mergers are O.K. and which are dangerous. Judges would be free to do pretty much whatever they wished. There would be unfair differences in the way similar deals were treated. What's more, businesspeople couldn't predict how the law would apply in any given case.

That's the opposite of the way the law is supposed to work. Sure, media concentration is scary. But we still don't have a good handle on the issue. Until someone comes up with a more probing way to analyze when media mergers harm the free flow of information, using antitrust law to solve the problem will do more harm than good.

France covers legal affairs from New York.

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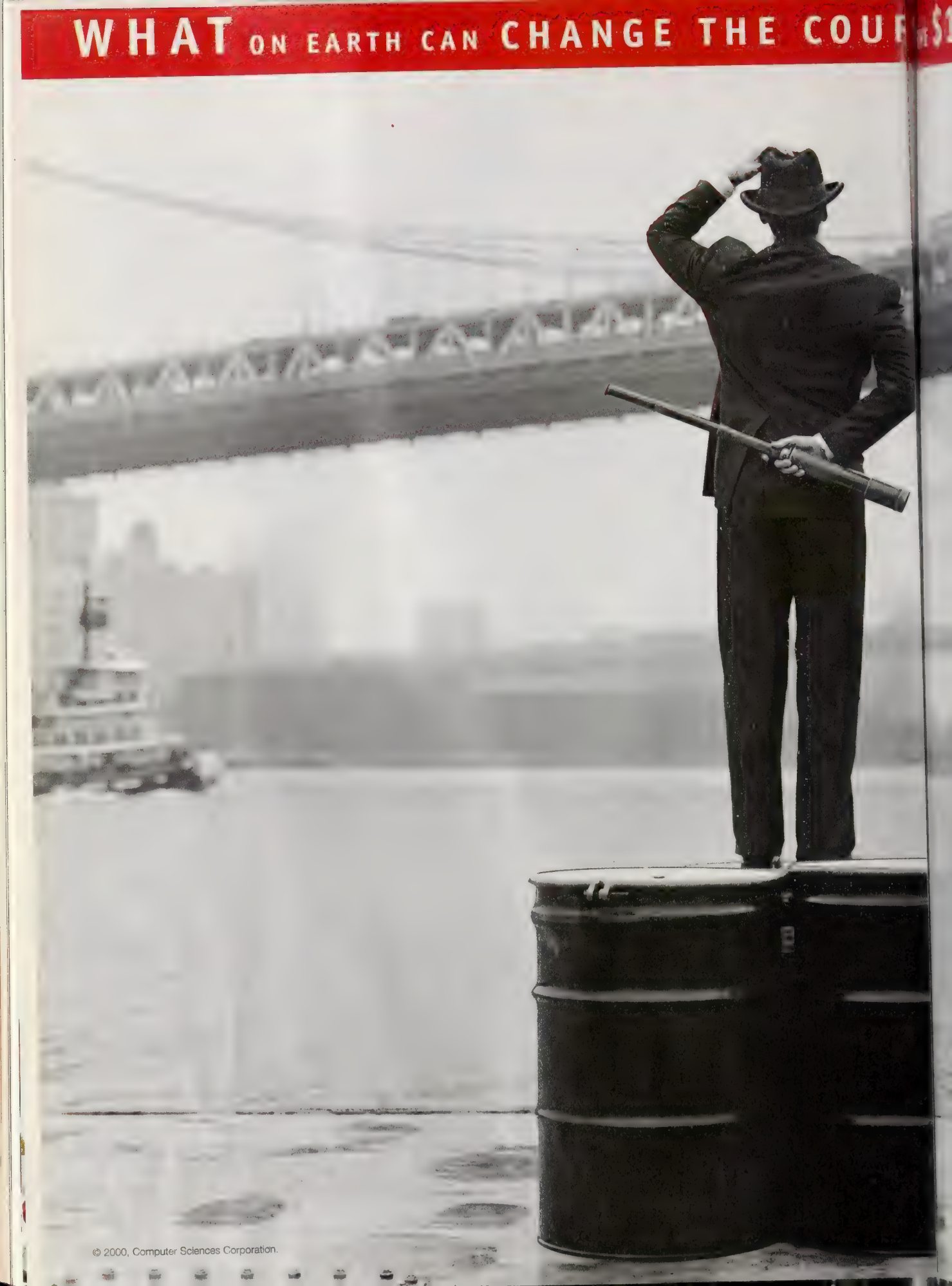

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THIS IS NO TIME FOR CONVENTIONAL THINKING™

NEW NOTE By acquiring Hear Music, Starbucks aim to improve its CD selection and presentat

Sales at stores at least a year g by a healthy Investors, pressed with the numbers Schultz's new st centric vision, pushed Starbu stock price up a 30% since Jan. 32. And Schultz promised more the same for year to come. back to basics," declares. "We've a great opportunity to build the br and grow."

TALKING TURKEY. One key to reach that goal: lunch fare. Schultz is hop that such items as $3.95 turkey sa wiches and $4.75 Greek pasta salad made offsite and delivered to stores ly—will bring in a flow of custom after the morning coffee rush. He's p ning to double the number of locations that sell the lunch menu to 400 this year. While so far stores with food each pull in a modest $50,000 to $100,000 extra in sales, experts believe the beefed-up menu will ultimately lure more beverage buying customers to the stores. "If it gets you to buy a $2 latte, then it's a good business for them," says Jerry Castellini, president of Chicago-based CastleArk Management, which owns about 750,000 Starbucks shares.

Schultz also plans to take the $2 latte into new territories. Armed with a $300 million capital spending budget for this year, Schultz will open stores primarily in the Midwest and Southeast in the

STRATEGIES

NOW, STARBUCKS USES ITS BEAN

The java giant bets on more bricks and mocha, less Web

Howard Schultz has returned to earth. Last summer, analysts and investors concluded that the CEO of Starbucks Corp. was all but lost in cyberspace. Schultz and his management team were busily crafting a grand-scale Internet plan for Starbucks that would turn the coffee outfit's Web site into a "lifestyle portal" by partnering with gourmet food sellers and home-furnishings stores.

But while Schultz had his head in the cyberclouds, trouble was brewing at the bricks-and-mortar stores. Delayed store openings and lower-than-expected sales at existing outlets were putting a damper on earnings. Analysts' angst turned to alarm on June 30 during a conference call, when Schultz said that earnings per share would come in at 54¢ for the year instead of 60¢ as expected. After he spent most of the meeting talking up his Internet strategy, investors concluded Schultz was distracted by his online aspirations, and they told him so in a hurry. The next day, they sent the stock down an eye-popping 28%.

Schultz got the message, and seven months later, he's a born-again coffee-shop man. He plans to add 450 U.S. outlets this year to a base of 2,217, about level with last year's pace. He's stepping up overseas expansion. And while not totally abandoning the Internet, he will focus on pumping up store sales by stocking more sandwiches, gifts, and other noncoffee merchandise. "Our management team is 100% focused on growing our core business without distraction or dilution from any other initiative," says Schultz.

The shift in focus is already starting to pay off. On Jan. 27, the Seattle-based chain reported a better-than-expected 30% increase in earnings, to $34.7 million, for the fiscal first quarter.

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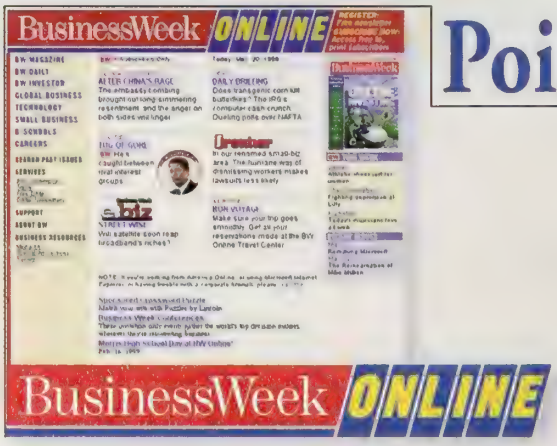

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. While it may seem to dwellers on East and West coasts that there's a bucks on every corner, plenty of munities in the U.S. are still waiting heir first shop. Company watchers saturation is actually years away. til they have 7,000 stores, they don't any problem growing," says ellini. The company plans to add locations in Asia and another 50 ritain to its 300-plus international es.

RD GAMES. Within the stores, con- ers can look for a raft of new mer- dise. Building on its reputation for in-store music, Starbucks has ac- ed privately held San Francisco- d music retailer Hear Mu- a small chain known for ample listening stations let customers sample be- they buy. That acquisition is sup- d to help Starbucks improve its CD tion and presentation, which cur- y doesn't amount to much more than nall rack near the cash register. ltz is even considering installing lis- ng stations in some Starbucks stores. arbucks is also making an ambi- push into selling gifts and knick- ks. It kicked off the effort during the holiday season, promoting items such as $35 board games, $14 millennium-themed time capsules, and $25 stationery sets. Now, Starbucks aims to have new products, such as seasonal items pegged to Valentine's Day, every couple of months.

The merchandise changes are not risk-free. Schultz has already discovered that while he knows how to sell coffee to the masses, he knows far less about selling novelty wares. Over the holidays, for example, the stationery kits and time capsules didn't sell as well outside the big cities. No surprise, say some critics. "Once you achieve the size of Starbucks, it lets you do different things without jeopardizing the brand, but you can still get into trouble and get distracted doing that," says R. J. Selfridge, a vice-president at Starbucks rival Tully's Coffee Corp.

But Schultz maintains the mix will work. And so far, investors and analysts seem willing to give the new initiatives a try. "Strategically, it makes sense because they've got an enormous flow of customers," says Richard Fradin, an analyst at William Blair & Co. in Chicago.

For all his contrition over last year's stock debacle, Schultz hasn't abandoned the Net. Starbucks has a marketing pact with Cooking.com in Santa Monica, Calif., and another test program with wine seller Geerlings & Wade Inc., based in Canton, Mass. Hot links to Starbucks appear on both companies' sites. But the strategy is a far cry from last year's portal plans. The Net today "is a secondary or even tertiary business for us," says Schultz. Nudged by investors, Schultz woke up and smelled the coffee.

By Louise Lee in San Mateo, Calif.

DOWN TO EARTH: STARBUCKS' NEW PLAN

- Increase capital spending by 15% for store expansion
- Push more in-store sales of non-coffee merchandise
- Roll out sandwiches and salads to more stores
- Limit Internet effort to partnerships and minority stakes in other e-merchants

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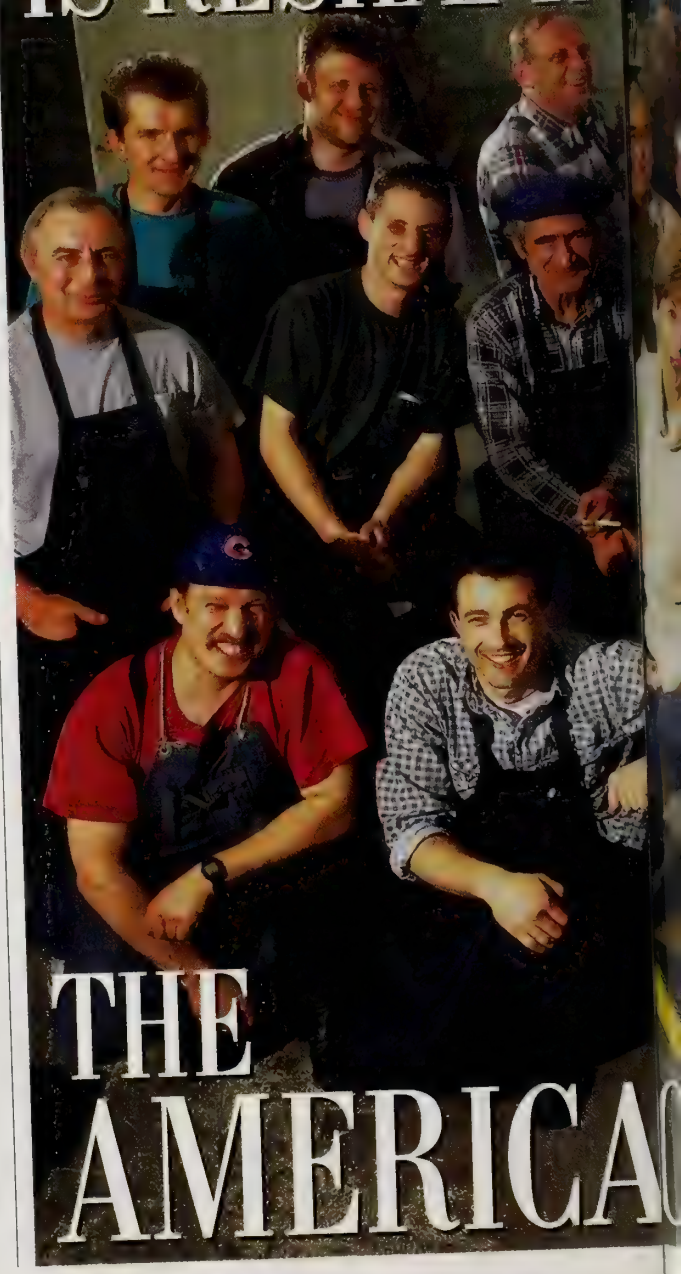
THE BOOM

Time to celebrate. This month, the current economic expansion became the longest in U.S. history. The boom has done more than create millions of new jobholders and stock owners. It has also restored the public's confidence and given more people than ever a shot at the American Dream. We tell the story. **HOW PROSPERITY IS RESHAPING THE AMERICAN ECONOMY** *Page 100.* In an interview with BUSINESS WEEK, the President gives his view of what caused the boom and how to prolong it. **CLINTON: WHY THE GOOD TIMES KEEP ON ROLLING** *Page 108.* Information technology is reenergizing old-line industries, improving the efficiency of companies from Ford Motor to Ocean Spray Cranberries. **WHY THE PRODUCTIVITY REVOLUTION WILL SPREAD** *Page 112.* A commentary by Economics Editor Michael J. Mandel explores the possibility that things will end badly. **THE RISK THAT BOOM WILL TURN TO BUST** *Page 120.*

HOW PROSP IS RESHAPIN THE AMERICA

Confidence is up, jobs are everywhere, and there's a new breed of entrepreneur



Leo Danushevsky arrived in New York City from Ukraine in 1979 with $900 and not much else. He worked as a machinist until 1989, when he borrowed $85,000 to start L. C. Mold Inc., a tool-and-die company in suburban Chicago. Last year, L. C. Mold did $5 million in sales. Danushevsky and his wife own $500,000 in stocks and just moved into a new home on 2½ acres, complete with a spa. What's more, almost all of his 37 employees—most of them fellow immigrants—own their own homes and participate in a profit-sharing plan. "Everything I read about America turned out to be true," marvels Danushevsky. "If you work hard enough, you can get somewhere."

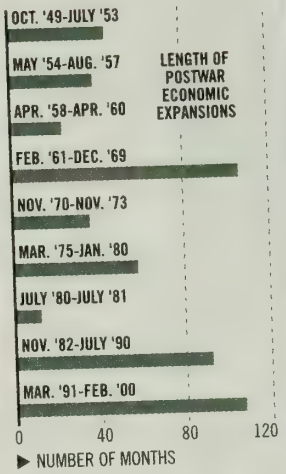
Danushevsky is the embodiment of the Roaring '90s. He's an entrepreneur. He's creating jobs. And the stock market has treated him very well. Multiply Danushevsky by millions and you see why the U. S. is celebrating the longest period of continuous growth in its history. At 107 months in February, this expansion surpasses the record set during the Vietnam War years of 1961-69. "I think people really feel that something has changed," President Clinton—one of many people eager to claim a share of the credit—said in a Feb. 1 interview with BUSINESS WEEK (page 108).

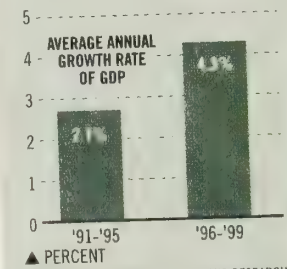
The expansion that began in March, 1991, has raised real gross domestic product by more than a third, minted 100,000 more people earning a million dollars a year, thrust the federal budget into a surprising surplus, and given jobs to people who were once outside the working world—welfare mothers, the handicapped, people who had been pushed into early retirement.

GLOOM BEGONE. Best of all, it has transformed the psyche of millions of Americans. The pervasive gloom at the beginning of the 1990s is gone. No longer are Americans afraid that the Japanese will overwhelm them with superior technology or that they will saddle their children with government debt. "What this expansion has done is give the American public its self-confidence back," says Andrew Kohut, director of the Pew Research Center for the People & the Press.

After a near-decade of progress, other countries look at America with awe, envy, and, sometimes, fear. "In 1990,

THE LONGEST BOOM IS GOING STRONG...





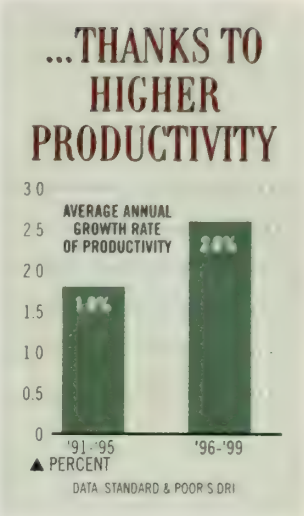
DATA NATIONAL BUREAU OF ECONOMIC RESEARCH, BLOOMBERG FINANCIAL MARKETS

PHOTOGRAPH BY MICHAEL L. ABRAMSON. CHARTS BY ERIC HOFFMANN/BW AND NITA L. JANSEN

HIS OWN BOSS Danushevsky (gray shirt, right) came to the U.S. in 1979 with $900. Today, he and his employees (mostly immigrants) own homes and enjoy profit participation

the concern was whether U.S. companies could compete in global markets," says Treasury Secretary Lawrence H. Summers. "Today, the concern is whether the U.S. is a hyperpower."

The record expansion shows few signs of flagging as it heads into uncharted territory. "There's no inherent biological clock ticking for the economy," says Nicholas S. Perna, founder of Perna Associates, a Ridgefield (Conn.) economic-consulting firm. Yes, a few economists worry that a crash in the high-flying stock market could set off a chain of events leading to serious economic trouble (page 120). But the prevailing wisdom is that the U.S. economy is stable—and poised for more years of healthy growth. One engine that should drive growth forward is the continued spread of productivity-enhancing technology everywhere from the Sun Belt to the Rust Belt (page 112).



What went right? In the 1990s, American businesses and workers broke out of a long, anguishing drop-off in productivity growth that began in 1973. Through the late 1980s and most of the '90s, companies went through wrenching downsizings. They invested in computer and communications technology that dramatically enhanced output per worker. Workers, meanwhile, upgraded their skills and seized control of their financial futures as new laws triggered a boom in 401(k) retirement plans.

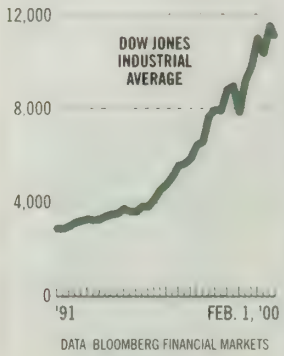
Smart policy out of Washington did its part to spark and sustain the expansion. Political support for the economic Nanny State withered. President Reagan's tax cuts fired up America's entrepreneurial zeal. Two decades of deregulation unshackled airlines, trucking, telecommunications, and financial services. Spending caps passed by Congress under Presidents Bush and Clinton helped end chronic deficits.

Fiscal restraint allowed Federal Reserve Chairman Alan Greenspan to keep monetary policy relatively loose except for a well-timed series of rate increases to head off inflation in 1994 and '95. And when world financial markets were in danger of melting down in the autumn of 1998, Greenspan rode to the rescue with three rapid-fire rate cuts. Yet Greenspan's greatest contribution may have been what he didn't do: choke off growth when unemployment fell below 5½.

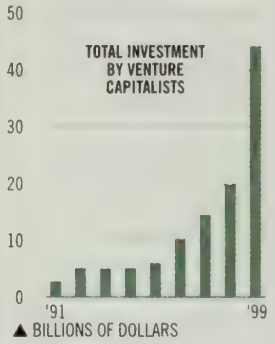
BLACK INK. Now, lavish tax revenue from the economic boom is making budget-balancing a breeze. Over the next decade, if spending outside of Social Security and Medicare is allowed to rise with inflation, the cumulative budget surplus could approach $1 trillion, or $3 trillion including Social Security tax revenue—a far cry from a few years ago, when experts were forecasting red ink ad infinitum. "The deficit was a symbol of our inability to deal with our problems," says former Treasury Secretary Robert E. Rubin.

Events beyond U.S. borders have contributed to the expansion as well. The end of the cold war allowed the U.S. to shift its emphasis from national security to economic growth. At the

THE MARKET SOARS...



DATA BLOOMBERG FINANCIAL MARKETS



DATA VENTURE ECONOMICS/NATIONAL VENTURE CAPITAL ASSN

"WE DIVE IN"
In the '80s, Pike had to use his savings to start a company. Now, venture firms woo him

same time, countries in Europe and Asia began dropping barriers to trade, and that allowed U.S. companies to sell more goods and services overseas. Everything clicked at once. "What has materialized is a million-to-one shot," says Robert E. Litan, a vice-president at Brookings Institution.

Perhaps the most important forces behind the boom are intangible. The U.S. economy has a seemingly endless potential to absorb and support fledgling companies, newcomers to American shores, and innovative ideas. In dozens of interviews with economists, pollsters, politicians, and sociologists, what emerges is a picture of a society that is optimistic, even adventurous. Gail D. Fosler, chief economist at the Conference Board, compares it to the settling of the American West after the Civil War. "Folks went in pursuit of opportunity, without a clear focus of what it might be," she says. "It was built on belief."

Now as then, a stream of both high- and low-skilled immigrants has added to the prosperity. At a time when the U.S. labor market is the tightest in a generation, "immigration seems to be filling in exactly where there would be labor shortages," says Mark R. Rosenzweig, a professor of economics at the U versity of Pennsylvania. As of 1997, 21% of the chemical gineers in the U.S. were foreign-born, as were 20% of computer scientists, says the National Science Foundatio

Mia Mendoza is one of those upwardly mobile newcom She came to the U.S. from Colombia in 1975 at age 20, J less and penniless. She worked her way up from rec tionist to talk-show host at a Tampa Bay (Fla.) televis station, then directed sales development for Hispanic company Telemundo Holdings Inc. In 1994, she and a g friend started Mendoza-Harmelin Inc., a Hispanic market and advertising firm. Today, the Bala Cynwyd (Pa.) ou bills $2.7 million a year and counts among its clients F Union Bank, Aetna U.S. Health Care, and Vanguard. Sou ing a lot like Danushevsky, Mendoza says: "I could o have done it in America."

LATE BLOOMER. It's worth recalling that t expansion started out slowly. Even after 1990-91 recession was over, job growth mained sluggish. Companies poured mo into new investment but waited years bef adding to their payrolls. The Pew Cent Kohut says many people thought the co try was still in recession right up to 19

ORIGINS OF THE BOOM

OCTOBER 1978

President Carter deregulates airlines

AUGUST 1980

Chinese leader Deng Xiaoping opens special economic zones for foreign investment

AUGUST 1981

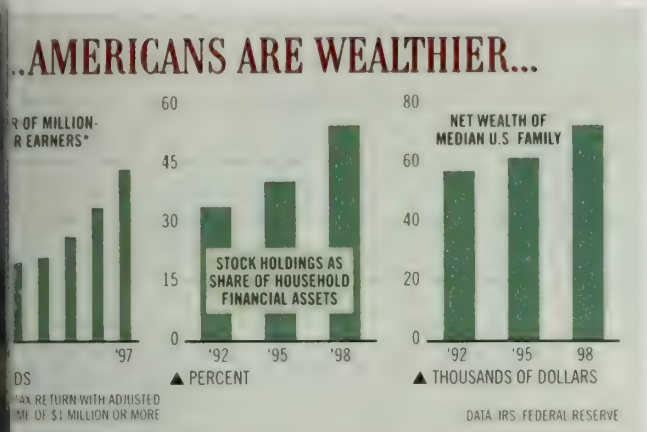
President Reagan signs a huge tax cut and fires striking air-traffic controllers

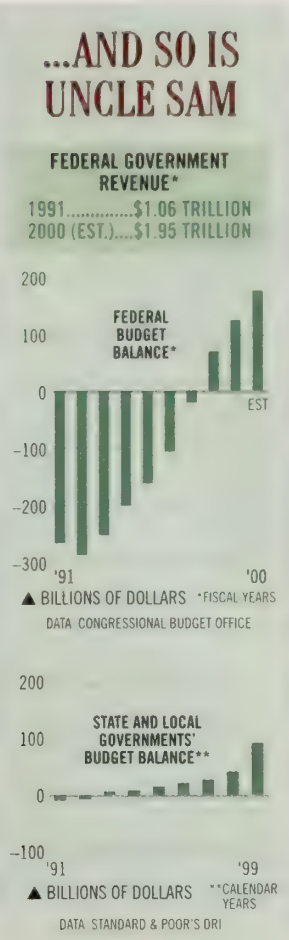
JANUARY 1982

AT&T settles antitrust suit and agrees to break up

MARCH 19

Micros is wor $700 after i





use of the drag of those early years, GDP growth in the s as a whole was substantially less than in the 1960s and t even with the 1970s and '80s.

ne second half of the 1990s was when growth really d in. High-tech investment finally began to pay off in the of higher profits and productivity. Companies began g again, the stock market boomed, and newly confident rican workers went on a spending spree that has so far n no signs of abating.

oday, a tight-as-a-drum labor market—the U.S. unemment rate is at a 30-year low —is giving workers a feelhat they're more in control. Yes, big companies are still g off workers in droves to stay competitive. Witness -Cola Co.'s announcement on Jan. 26 that it's slashing jobs. But job cuts no longer prompt collective angst. should they? A study by the Federal Reserve Bank of Boston shows that workers who are laid off today are 80% more likely to get a job within a month than in 1992.

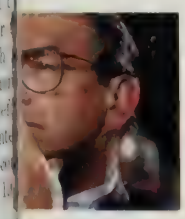
Things weren't easy for James Petillo, 57, in 1992, when he quit one job and failed to find another right away. He had worked in personnel for a succession of big companies. So he switched careers, and the growing economy has helped lift his fortunes. He works out of his Lake Bluff (Ill.) home in a less glamorous but better-paying job as regional manager at Super Products Corp., a Milwaukee supplier of truck-mounted industrial-vacuum equipment. His net worth has increased 150% in the expansion. Says Petillo: "I feel good in the morning."

Like Petillo, more executives are abandoning big companies. Some are being drawn to risky startups by the promise of stock options. "A lot of people aren't willing to climb through the ranks of traditional companies anymore," says Crichton W. Brown, managing director of New Orleans-based venture-capital firm Advantage Capital Partners.

"SEA CHANGE." A study of 500 Internet companies by executive-search firm SpencerStuart found that 88% of the executives they hired in the fourth quarter of 1999 came from traditional companies. A year earlier, the figure was just 38%. "There has been a sea change in our view about jobs," says Richard T. Curtin, who surveys consumer attitudes for the University of Michigan. "In the early '90s, we were apprehensive and saw threats on many fronts. Now, we feel quite secure in our job prospects." More people are going back to school, too. Since 1989, the number of college enrollees aged 35 and over has risen by over 25%.

One sign of the new mood is the explosion of the venture-capital market. Venture capitalists sank $45 billion into fledgling companies last year, compared with $3.7 billion in 1990, according to Venture Economics in Newark, N.J.

Venture cash is transforming half-formed ideas into world-beating products and services. Back in the 1980s, even though Tyrone F. Pike had worked for a venture-capital firm, he had to use his own savings to start his first company, LAN Systems Inc. In the 1990s, the money came to him. Three venture-capital funds hired him to nurse back to health sickly Citrix Systems Inc., which builds applications servers. Today, Citrix has a $13 bil-



BER 1987

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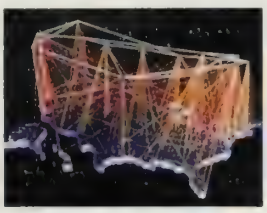
NOVEMBER 1989

Berlin Wall falls, marking the end of the cold war. Defense budgets soon shrink

NOVEMBER 1990

President Bush signs spending caps; first serious attempt to control raging deficits



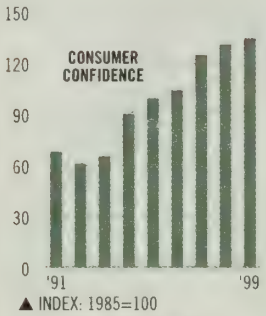
MARCH 1991

National Science Foundation privatizes the Internet. Economic expansion begins

APRIL 1994

James Clark founds Netscape ▶

THE MOOD IS UPBEAT



▲ INDEX: 1985=100

DATA CONFERENCE BOARD

▲ CPI + UNEMPLOYMENT=MISERY

DATA COMMERCE DEPT

"I FEEL GOOD"
In '92, Petillo left his personnel job. Now, he works from home for an industrial supplier

lion market value. Pike's latest startup is VPNX.com Inc., which offers on-demand virtual private networks over the Internet. "There's a fiercely independent spirit that exists in America," says Pike. "We're not attuned to the fact that we might not succeed. We dive in headlong."

Women and the young are among the divers. The number of female-owned businesses grew by 42% from 1992 to 1999, according to the National Foundation for Women Business Owners. Employment by such businesses grew 102% in the same period. "The rise in women entrepreneurs is one of the big demographic changes in our society," says Lynn Neeley, president of the United States Association for Small Business & Entrepreneurship. As for the young, the National Association for the Self-Employed says that only 1% to 2% of graduating MBAs in the 1980s wanted to start as entrepreneurs. Now, at various schools, 10% to 20% do.

What they really want is to become millionaires. So does everyone, it seems. The Fed's most recent consumer-finance survey shows that market mania is infecting America like the flu. Stocks accounted for 54% of household financial assets in 1998, up from 28% in 1989. Some 40 million new investors have poured into the market since 1991. By 1998, 80 million Americans—or close to 50% of U.S. households—owned stocks, either directly or in a mutual or pension fund.

Companies wit more than a busi plan have raised seemly amounts cash just by offe shares to the pu Since the expan began, more t 5,000 companies h come to the st market to raise m than $300 bill "We're the only co try in the w where you can r your first $100 mi before you buy y first suit," s Summers.

PLAYERS. The tech ogy-heavy Nas Composite Index skyrocketed, from der 500 in Ma 1991, to just un 4,000 by this mo In the same per even the staid D Jones industrial a age has zoomed 30 Today, superman tabloids are as lik to write about crosoft Corp. Ch man William H. Gates III as they are the latest supermo Retiree Rose Kapranos, a 76-year-old former administra assistant in a suburb of Portland, Ore., reads three news pers a day, about four financial magazines a month, and is tive in a local investment club. They help her keep a wat ful eye on her and husband Bill's stock portfolio, which is r worth about $600,000. The couple lives on a fixed income about $4,000 a month, but thanks to their investments, t have the funds to travel all over the world.

Stock ownership has blossomed as interest rates have clined and corporate profits have risen. But other fact have played a role, too. Many companies shifted their e ployee pension plans from defined-benefit plans to self rected, defined-contribution ones, which gave individual huge cache of money looking for a place to grow. Ba boomers began searching for ways to make their sun years more financially secure, and they poured money into uity mutual funds. Then the tech-savvy younger set piled Today, 21% of G Xers—those betwe the ages of 19 a 35—own stocks.

The 1990s also s democracy come Wall Street. Unc Chairman Arth

FEBRUARY 1994
Fed begins a preemptive strike against inflation with the first of seven rate hikes

DECEMBER 1994
Finance goes high tech. The face value of OTC derivatives nears $40 trillion

JANUARY 1995
Treasury Secretary Rubin engineers a bailout of Mexico after peso collapse

JULY 1997
Devaluation of Thai baht triggers "Asian contagion," launching deflationary forces

DECEMBER 199
Annual inflation rat falls below 2% for the first time since 1986 ▶

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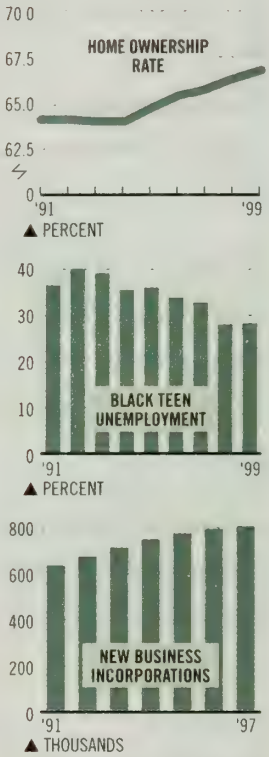

DATA: COMMERCE DEPT., STANDARD & POOR'S DRI, SMALL BUSINESS ADMINISTRATION

MARKETING WHIZ Mendoza came to the U.S. in '75 and went from receptionist to owner of an ad agency

Levitt Jr., the Securities & Exchange Commission cracked down on abuses by stockbrokers and market-makers. The Internet and other technologies brought such new services as low-commission online brokers and do-it-yourself online research and portfolio management. Then came electronic trading systems that cut out expensive middlemen. That encouraged small investors to jump in and lowered the cost of raising capital.

Equally important in lubricating commerce has been the rise of financial engineering—chopping up and recombining plain-vanilla securities to meet the specialized needs of investors and borrowers. By last summer, the face value of over-the-counter derivatives, such as interest-rate swaps, had reached $92 trillion worldwide, up from $25 trillion at the end of 1992, according to newsletter *Swaps Monitor*.

But more than anything else, it's the rise of information technology and the Internet that has supercharged the economy. The Net's birth as a commercial enterprise was in March, 1991—the same month that the current economic expansion began. incidence? Of co But over the past ple of years, the have become ine cably linked. Fo Labor Secre Robert B. Reich lieves that 70% o credit for the ex sion belongs to puters and the I net. "The investments in i mation techno have finally begu pay off," he "Everything else in comparison."

The spadework the technology boom took place before the Nati Science Founda privatized what been a digital san for academics. B ness purchases o formation techno have been rising 25% a year since 1970s. Massachus Institute of Techn gy economist Brynjolfsson says hard-to-quantify i vations in the way companies do business are actually more valuable than the hardware and software they've chased. "More than $1 trillion in those intangibles has built up over the past 10 years," Brynjolfsson maintain

"SAFETY VALVE." Electronic commerce—a spawn of the ternet—allows companies to reduce the amount of m they spend on processing an order from $75 to $10 on a age, says David Pecaut, co-head of global electronic c merce at Boston Consulting Group. Competition and p transparency will increase as e-commerce spreads, put downward pressure on profit margins and forcing compa to become more efficient. "This is a safety valve on inflati Pecaut says. Diane C. Swonk, chief economist at Bank Corp. in Chicago, predicts that aggressive capital spending pecially by large companies, "will help keep producti growth on the rise."

There certainly will be plenty of gear for companies to buy. The Next Big Thing—broadband technology, or "fatter pipes" that allow swifter Internet downloads—seems well

107 MONTHS

SEPTEMBER 1998
The Fed begins a series of three rate cuts to calm markets after Russian default

JANUARY 1999
Europe introduces a single currency, the euro, touching off cross-border mergers

MARCH 1999
The Dow Jones industrial average punches through 10,000 points

SEPTEMBER 1999
The U.S. budget moves from deficit into surplus for the first time since 1969

FEBRUARY 200
The expansion reaches record length, surpassing 1961-69 boom

PHOTOGRAPHS BY JAY FIELD, GAPS/SIPA; TMI/SIPA

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on its way to taking the Internet to a new level of power and convenience. Says William L. Schrader, chief executive of PSINet Inc. of Herndon, Va., which carries Internet traffic: "We're in Day One of the Internet Age."

The U. S. economy is so vibrant that even a big tumble in the stock market might not be enough to knock it off-kilter. Sure, worried consumers might retrench. But with the economy growing at an annual rate of nearly 6% in the last quarter of 1999, any slowdown in consumption would simply do some of the Federal Reserve's work by putting the economy on a safer, slower path of growth. "I could e see this economy growing right through a stock ma decline of 1987 proportions," says Alan Blinder, profess economics at Princeton University and a former Fed chairman.

The economic growth of the 1990s has lifted many b The number of Americans living in poverty has dro dramatically, from 10.5% in 1991 to 8.5% in 1998, accor to the Census Bureau. The unemployment rate among b has fallen across the board: from almost 12% to 7%

CLINTON: WHY THE GOOD TIMES KEEP ON ROLLING

Who gets credit for the boom? And how long will the good times roll? On Feb. 1, Washington Bureau Chief Lee Walczak and News Editor Paula Dwyer met with President Clinton in the Oval Office and got the President's take on the nation's long stretch of prosperity.

On the roots of the boom:

I think there are two or three things at work here, maybe more. By the early '90s, the trauma that American industry had been through in the '80s resulted in significant restructuring [and] increased competitiveness. Even more important is the increase in productivity caused by the explosion in high tech. A third factor is the extent to which workers came to understand the global economy and didn't make wage demands that would have sparked a new round of inflation. I think that the role of the Fed was very important. [Federal Reserve Chairman] Alan Greenspan saw something fundamentally different was happening. When evidence [showed] that we didn't have a lot of inflation, he didn't kill the recovery.

On the role Clinton policies played:

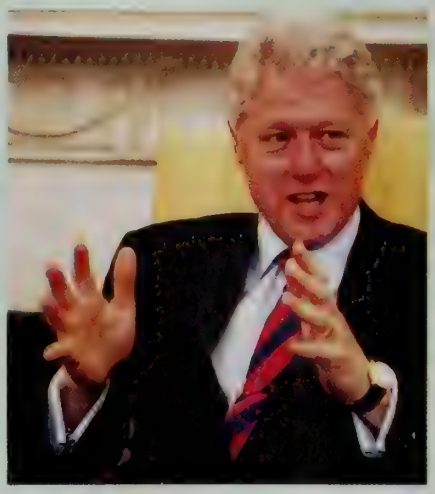
The policies that we've had for open markets contributed. Anybody that's been responsible for that, Republicans or Democrats, deserves some credit. The importance of the [Administration's] '93 [deficit-reduction] bill is that all the business writers were writing in late '92 about an anemic recovery. We decided we had to do something dramatic to change the psychology.

On the national mood today vs. 1991:

People were frustrated. They didn't see a better future. Today people feel confident and hopeful. They [don't] really believe we've repealed the laws of supply and demand. But they know we've changed something [by] getting rid of the deficit.

On continuing income inequality:

The government should have policies which help close the gap. What we ought to do is raise the minimum wage and increase the Earned Income Tax Credit; increase the child-care tax credit and make it refundable.



A BIG BURDEN GONE

"Running a surplus has given the American people a high level of confidence"

On the threat to the expansion posed by excessive debt and speculation:

If you look out there at what could bring this to an end, we're much more resistant than we were 10 years ago, 20 years ago, to oil-price shocks. The economy can absorb a great deal more. The biggest unanswered question is, to what extent is higher private debt a problem? A lot of people worry [that] if the stock market falls, it will be a horrible thing and people will be strung out there. My observa tion is that even though some [lending] may have been questionable, most will contribute to the long-term growth of the economy.

On whether big projected budget surpluses might end partisan debates over tax cuts vs. debt reduction:

You don't have to have an either/o debate. It depends on how big you want your tax cut to be, and it depends on what your formula for saving Social Security is. Running a surplus has given the American people a high level of confidence—in themselves, their country, and the ability of government to do that which it should properly do. It has freed them up to debate what that is. You have four major candidates—[and] substantial differences among them. But no one is saying it's O. K. if we start running deficits again. I think that's a remarkable thing.

On Vice-President Gore's remark that slump might lead him, as Presiden to redouble government downsizing:

I don't want to get into the campaign. But I think we're talking abou two different things. What he doesn't want to do—and I agree—is see the country commit itself to a very large tax cut, which would prohibit us from paying the debt off, and if a recession should come along, would put us in a terrible bind. That is different from saying if we were in a severe recession, "should we have some stimulative investment?" If we [did, it] woul be far more likely to work because w flushed this debt out of the system.

BusinessWeek ONLINE

For a complete transcript of the interview, see the Feb. 14 issue online at www.businessweek.com.

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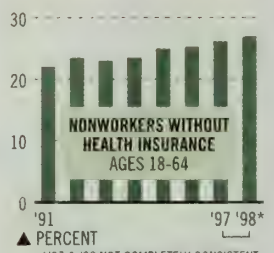
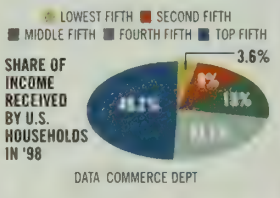
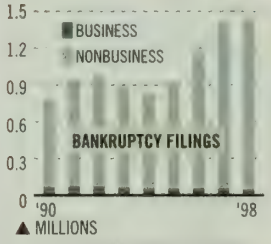


DATA EMPLOYMENT BENEFIT RESEARCH INSTITUTE



DATA COMMERCE DEPT



DATA: AMERICAN BANKRUPTCY INSTITUTE

DANGER SPOT
Some 44 million Americans still lack health insurance

women, from almost 14% to 7% for men, and from 36% to 28% for teenagers. A record 66.8% of American households own their own homes today, up from 64.1% in 1991. And minority homeownership is booming as well. Among Hispanics, the number is 45.5%, up from 39% in 1991. And among African Americans, it's now 46.7%, up from 42.7%.

THE LION'S SHARE. Of course, not everyone is celebrating. Some 44 million Americans lack health insurance. An influx of low-priced imports from developing countries has wiped out thousands of American jobs in the steel, textile, and other industries. And a ballooning trade deficit is a constant reminder that the U. S. is a net debtor nation, importing far more than it exports. The current account deficit, which measures trade in goods and services as well as investment income, rose to about 3.4% of gross domestic product last year—the level at which economists start to fret that the dollar could tumble. While foreigners are happy to extend credit to the U. S. now, they may change their minds some day and demand repayment of those mega-IOUs. Still, the trade deficit hasn't yet exceeded the record-high percentage of GDP it reached in 1986 and 1987.

Another festering problem is income inequality. Yes, median household income, at $39,308 in 1998, has risen 10% during the expansion. But that still leaves most incomes barely above pre-recession levels. And the gap between poor and rich is huge: The bottom fifth of U. S. households receives less than 4% of the national income, while the top fifth takes home almost half of it. "The expansion has been very good for capital, but not for workers," says Edward N. Wolff, a New York University economics professor. On the other hand, the gap between rich and poor has not wid since 1995. And the Fed's recent consumer-finance su implies that even the poorest Americans are moving up: proportion of families with incomes below $10,000 fel one-sixth, to 12.6%, from 1995 to 1998.

Consumer debt is another concern. Nonbusiness b ruptcy filings soared 60% from 1991 to 1998, and the am of borrowing on margin has doubled since 1996. If the e omy suddenly slows and income growth tapers off, sumers could be severely squeezed. But even the debt o hang could be overblown. Incomes have risen along debts, so debt-service payments aren't growing a percentage of disposable income. And if a study com sioned by the Consumer Federation of America is right, sumer bankruptcies are on the wane. They dropped 9.4 last year's fourth quarter from the same period in 1998 the largest one-year decline on record, according to search by University of Maryland economist Lawrence Ausubel.

Adding it all up, the U. S. is in a far better place a starts the new millennium than it was when the current nomic expansion began 107 months ago. The econom more productive and more resilient, and so are the Amer people. The country will never be the same.

By Rich Miller, Laura Cohn, Howard Gleckman, Paula Dwyer in Washington, with Ann Therese Palme Chicago

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WHY THE PRODUCTIVITY REVOLUTION WILL SPREAD

The Net's revamping of old-line industry may save trillion

For much of the last century, it was hard not to refer to Ford Motor Co. and the Industrial Age in the same breath. The company that practically invented mass production sported such 20th-century features as assembly lines, labor unions, sprawling supplier networks, and a vast dealer universe. The 97-year-old auto maker wasn't exactly an icon of the New Economy.

Until now. In November, 1999, the company unveiled plans to set up a massive online bazaar, called AutoXchange, for all the goods and services it buys, whether paper clips, stamping presses, or finished components. Over the next three to five years, Ford hopes to vastly improve productivity—and save billions in the process—by replacing an elaborate network of personal contracts and triplicate forms with a global electronic forum where deals can be done almost instantly. In just the first few years, it claims it could save as much as $8 billion from lower prices and boost supplier productivity by up to 10%.

Forget about Amazon.com Inc. and eBay Inc. Ford, along with a host of much maligned metal-benders and other old-timers, is transforming e-commerce from a blip on the economic radar into the engine of industry. And although it may not offer a dot.com market cap or a hipper-than-thou ad campaign, Ford something else: real e-productivity potential, in the form $83 billion-a-year purchasing budget and 30,000 suppl Just as Henry Ford's assembly line created a revolu says Ford Chief Executive Jacques A. Nasser, the Intern once again transforming manufacturing. "This is goin change how we think about the business and the way we duct business," says Nasser. "This is going to reinvent way the automobile business works."

Why stop with automobiles? Sure, by dragging its vast

ENRON
At its Houston trading floor, the nation's largest wholesale electricity trader uses the Net to add or draw power from a grid when demand or prices change

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BW 02/00

GE POWER SYSTEMS

Customers use the Web to watch from anywhere in the world as a $35 million turbine moves down the assembly line, avoiding costly errors

work of suppliers online—General Motors Corp. and DaimlerChrysler have similar plans—the auto industry will be linking up a big chunk of the world's economy, with a goal of cutting spending on parts alone by 10%. But other old-line companies, from Royal Dutch/Shell Group to Honeywell International to General Electric, are pushing just as hard to move the Net-driven productivity revolution from the fab land to the heartland. "If this is going on in the auto industry, think about the implications across all industries," says Gary Hamel, founder of Menlo Park (Calif.) consultancy Strategos. "We're talking trillions of dollars in productivity gains when all is said and done."

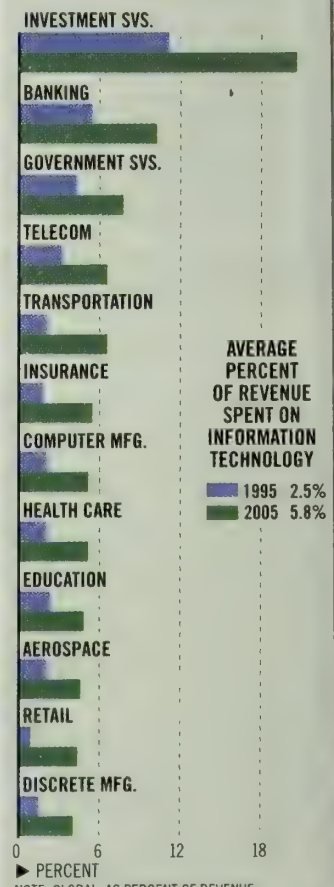
E-ENGINEERING ENTHUSIASM. The refrain is one we've heard before—but this time, it's *con molto brio*. Technology spending in the late 1980s and early 1990s triggered dreams of a productivity miracle, but it wasn't until companies redesigned their businesses that the investments bore fruit. During the reengineering craze, the resulting increase in productivity showed up first in high-tech sectors such as chips and computers and is still coursing through the economy. The Net is inspiring new enthusiasm for information technology investments, which the Gartner Group estimates will rise to an average 5.8% of revenues for global companies in 2005, from 3.5% now. And with what they have learned from reengineering, the latest improvements—dubbed e-engineering—have the potential to keep the fast-growth, low-inflation miracle alive. Management expert Adrian J. Slywotsky of Mercer Management Consulting Inc. thinks that the Net will lead to tenfold efficiency improvements in such areas as delivery and purchasing alone. With a budget as enormous as F that's not small change.

Yet as it did with reenginee adapting to the Net-based mod quires some wrenching changes biggest investments won't be in nology but in reshaping compani move at Net speed, says Erik I jolfsson, co-director of Massachu Institute of Technology's Cente eBusiness. Companies that can't f a new culture may not survive. numbers of jobs in such fields as chasing will be eliminated, while skill shortages may many companies from cashing in on the payoffs. The ha part of all may be creating collaboration between a com and its new partners. "This revolution will proceed in a 'h fashion," says Slywotsky. "There will be slowpokes. But shift is too fundamental to fail catching everyone in the r

Signs of change are popping up all over. "Everyor every sector, whether they are extracting minerals Mother Earth or working with the consumer, is faci marketplace that is just relentless on costs," says Phill Carter, the Harold E. Fearon Chair of Purchasing at Ari State University. Corning Inc., for example, says tha using a Web-based catalog in its science products un will be able to drop its average procurement cost to per product from $140. At NCR Corp., ordering such products as rolls of automated teller machine paper or toner cartridges online has cut the time from order to delivery to a few hours from three days. Business-to-business auction site FreeMarkets Inc. says that purchasers are saving anywhere from 2% to 25% by letting suppliers bid for business online. Enron Corp., the nation's largest wholesale electricity trader, is using the Net from its Houston trading floor to add or draw power from a grid in 20 seconds flat when demand—or price—changes suddenly. Enron President Jeffrey Skilling says the company's wired power plants are 50% more efficient than the old ones.

General Electric Co. provides a fascinating glimpse of how the Net changes things. At GE Power Systems, customers and designers use project collaboration technology to help construct a power plant from the ground up on

THE INVESTMENT LEADERS



NOTE: GLOBAL, AS PERCENT OF REVENUE

DATA: LOU MARCOCCIO, GARTNER GROUP

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the Web, says Jose A. Lopez, the subsidiary's general manager of e-business. They can hold virtual meetings in which blueprints can be exchanged and manipulated in real time. Then customers can use the Web to watch from anywhere in the world as a turbine is built and moves down the production line, ordering last-minute changes as needed. Since the turbines cost an average of $35 million each and contain about 13,000 parts, catching changes—and errors—early is priceless. And after the turbine is delivered, a new Net-powered system called the Turbine Optimizer lets both customers and GE compare the performance of the turbines with other GE turbines around the world. While GE's new systems should give the company a 20% to 30% reduction in the time it takes to build a turbine and could improve the annual output of each by 1% to 2%, that's just the beginning. "Sure there are productivity gains for us, but this is mainly a competitive advantage," says Lopez. "If customers find this helps them, they'll come back." So far, so good: Sales at GE Power Systems are expected to rise to $13 billion this year, up 30% from 1999.

INSTANT ANALYSIS. The collaboration the Net fosters can work just as well for farmers as it does for manufacturers. Before Ocean Spray Cranberries Inc. turned to the Internet, growers didn't always sell cranberries to their own cooperative because they could get better prices elsewhere. So the cooperative set up an extranet that quickly distributes helpful information to growers and lets them talk back instantly. Growers can drop off a load of berries and within two hours log on to the extranet for an analysis of their crop, the prices they earned, and how their berries compare with the quality and prices of others. The information helps them make better decisions about harvesting the rest of their fruit—data that last season let South Carver (Mass.) grower Gary Garretson earn 10% higher profits on berries sold to Ocean Spray. The co-op also got more for its money: Ocean Spray executives say quality has improved and waste has been cut by more than 25%.

The Net's productivity gains are trickling down to even the smallest companies. In May, Miracle Transport in Midland, Mich., joined an online network, the National Transportation Exchange Inc. The Downers Grove (Ill.) exchange helps truckers and dispatchers find cargo within ra their trucks. Trucker Bill Frizzell now logs on to NTE making his regular runs to see if he can pick up any cargo. In the last six months, NTE delivered about $60, extra revenue—half his overall business. "I thank the first, and I thank NTE second," says Frizzell.

One of the Net's most powerful applications is collecti formation on customers, then using it to fine-tune market design more profitable products. At Sanwa Bank Corp., use data mining to direct the best customer service to the profitable clients company thinks boost the producti its support oper by up to 20% this At Weyerhaeuser Marshfield (Wis.) factory, executives out customers who provide enough ness. Last year, W haeuser cut its cus roster in half but bled order volume the past, relation counted more," Weyerhaeuser President Lee K man. "But now, th chine knows more we do." Since 199 factory's return o assets has grown –2% to 27%.

Many other co nies are using th ternet to stimulat novation. At H Dutch/Shell, for e ple, six teams of si ployees each every week at the ploration & Produ Divisions in Hou and in Rijswijk, Ne lands, to mull over e-mailed by other ployees. Last year "GameChanger" t collected 320 idea everything from to cut paperwor new ways to disc oil. Of Shell's five business initiatives in 1999, four came from the GameCh ers, including Shell's "Light Touch" oil discovery met which senses hydrocarbon emissions released naturally int air from underground reserves. The laser technology, re by teams using a global network, helped locate some 30 m barrels of oil reserves in Gabon last year.

The best Net news, then, may be that it can lead to f growth as well as cost savings. "There have been boat written about how much you save, but not much about much revenue you can gain," says Gerry Angeli, vice-p dent, global manufacturing and e-commerce at NCR. A Plastics, its gepolymerland.com site started selling resi

WORKING THE WEB

How companies use technology to boost productivity at every stage of the business process.

PROCESS	EXAMPLE	PAYOFF:
INNOVATION	Royal Dutch/Shell's "GameChanger" teams use the Net to generate new business ideas	New "Light Touch" oil discovery method found 30 million barrels
COLLABORATION	Ocean Spray's extranet assesses cranberry quality immediately and helps growers get better prices	Growers get higher profits; Ocean Spray cuts waste and boosts productivity
DESIGN	Honeywell uses the Net to help fashion a customized prototype of anything from a fan blade to a golf club head	Design time cut from six months to 24 hours
PURCHASING	Ford's AutoXchange creates massive online trading bazaar for its 30,000 suppliers	Could save as much as $8 billion in first few years
MANUFACTURING	BP Amoco, using Net technology from Honeywell, can quickly identify plant inefficiencies	Stems 2% per day productivity loss in Grangemouth, Scotland, refinery
LOGISTICS	Cement maker Cemex uses Net-based truck dispatch system to speed deliveries to customers	Cement delivered within 20 minutes, down from 3 hours
MARKETING	Weyerhaeuser uses the Net to weed out its least valuable customers at Marshfield (Wis.) door plant	Boosted the plant's return on net assets from –2% in 1994 to 27% in 1999
SERVICE	GE Power Systems lets customers use the Net to compare the performance of its turbines against other GE turbines in the market	Turbine productivity expected to rise by 1% to 2% annually

DATA: COMPANIES; BUSINESS WEEK

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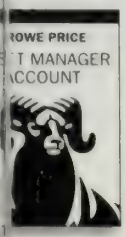

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January, 1998, and should be selling nearly half of the division's $750 million in total resins online within a few months. And where Enron used to take nine months to assemble a $100 million natural gas deal for a factory or other customer, it can do the job in 20 minutes now. Skilling says technology efficiencies helped boost Enron's operating income by 47% in 1999, to $1.3 billion.

BUREAUCRACY BLOCKS. Yet for all the glamour and sizzle of e-business, companies must make far-reaching changes to benefit from the Net revolution. It's an echo of the productivity gains of the 1990s, and plenty of other "revolutions" before those: You can't just set up a hot new system and expect the money and ideas to roll in. "The bureaucracy is a bigger block than the technology," says Edward W. Davis, a professor at the University of Virginia's Darden Graduate School of Business Administration. Andrew B. Zimmerman, global leader of e-business consulting for PricewaterhouseCoopers, says cultural issues can take up as much as one-fourth of the time on an info-tech consulting job. One time-eater is the issue of sharing once proprietary information with others inside and outside the company. After a career spent defending your turf, it's not easy developing collaboration based on trust. "It has to be earned," says Robb A. D'Amore, e-commerce marketing manager at Corning Inc. "What level of info do we share? How much do we push out to the public? How much do we hold?"

Speed, too, is more critical than ever in a Net-centric world. Enron's Skilling literally knocked down walls at the Houston headquarters to install stairways and avoid wasted time waiting for elevators. R. David Nelson, the vice-president for worldwide supply management at Deere & Co., tells the story about two lawn mower blade suppliers that were invited to become more efficient to keep up with Deere. One quickly got up to speed, the other dragged its feet. Guess which supplier doesn't do business with Deere anymore—or anyone else?

The unlucky Deere supplier won't be the last cautionary tale of the new model. "There will be a lot of dead bodies," says technology consultant and author Don Tapscott. Because the Net can connect customers directly to products, the raison d'être of suppliers, in particular, is at risk. Emerson Electric Co.'s Liebert Corp., for example, plans to launch a direct-sales Web site for backup power systems in April, targeting a competitor—and putting pressure on the rival's distributors. "I can't wait to see the look on my competitor's face," says Robert P. Bauer, president of Liebert Americas. "I believe that distribution channels that are commodity resellers are definitely threatened."

Look for opportunities cloaked in those risks, though. Lear Corp., which provides auto seats and other parts to Ford, might use Ford's virtual marketplace to get a better price on fabric by piggybacking on the auto maker's vast purcha power, says Ford's e-purchasing chief Alice Miles. Or a plier could sell excess capacity in a plant it wasn't goi need for a few weeks. "Information about assembly spee requirements now will be immediate," says John Crary, ident of Lear. "That's going to make it cheaper for us business in the end and help us boost revenues."

The transition is sure to be rocky. But take a look i just one traditional company—Honeywell International I and the Net's possibilities appear endless. Despite the plications of a merger with AlliedSignal, Honeywell launched a companywide Net strategy that is already p off. The company has introduced a series of portals su MyPlant.com, aimed at helping plant managers solve m facturing problems online, and a site called Avionics-Zone which resells used equipment. This year, AvionicsZone should hit $24 million in sales, and Honeywell expects Plant.com to have $500 million in sales by 2003.

The company is using the Web everything from collaborative desig an airplane cockpi examining materia Phoenix through electron microscop cated in Morrist N.J. By linking al labs, Honeywell generate $45 millio productivity gains year. And when Amoco, which us Honeywell control tem in its refine found that a rea in the Grangem (Scotland) refinery n't working at throttle, there wa need to spend days ing in experts. Ho well e-mailed a product c LoopScout, which BP engin used to transmit data over Net. Honeywell engineers anal the results and sent back a re and the refinery was runnin top speed the next day. "T are all kinds of capabilities we're just beginning to f grasp," says Raymond C. St corporate vice-president for (q ity movement) Six Sigma and ductivity at Honeywell. Sudde the Net has gone from a threat to established Indus Age companies to a tool with nearly unlimited potentia used wisely, it could keep this economic engine humming some time to come.

OCEAN SPRAY

Two hours after dropping off a load of cranberries, farmers can go online for a full analysis of their crop and how their berries compare with those of other growers

By Jennifer Reingold and Marcia Stepanek, with D Brady, in New York

BusinessWeek ONLINE

For an analysis of the cultural challenges old-line companies face i Internet Age, see the Feb. 14 issue online at www.businessweek.co

servers

quarters of all internet servers are intel-driven[1]. Why is intel architecture the world's e-business platform of choice? because it's technology people trust. because it continues to strike the right balance between price and performance. because it consistently offers the greatest choice of leading-vendor hardware and software solutions. and because nobody wants to be stuck with a proprietary system five years from now. e-business is growing faster than most e-business budgets. the way to be more effective is to be more cost-effective. and the way to achieve that long-term, is to deploy your e-business on intel-based servers. this is the surge economy, and it's only the beginning. [illegible] → [illegible]

intel.

THE RISK THAT BOOM WIL TURN TO BUST

COMMENTARY BY MICHAEL J. MANDEL

Convinced by the longest expansion on record, even skeptical investors and economists are embracing the New Economy—and with it the notion that the U.S. has moved into an era of lower inflation and higher productivity growth. Unfortunately, too many have given in to the temptation to conclude that the New Economy also means the end of the business cycle.

That's wishful thinking. Long-term productivity gains are certainly real and will continue. But nothing about the New Economy rules out business cycles. Quite the contrary: The same forces that propelled the economy to its current heights put it at greater risk of a sharp downturn. Sooner, rather than later, the New Economy boom is likely to be followed by a New Economy bust—a recession and stock market decline that could be much deeper than most people expect.

The reason is simple: This expansion, unlike any previous one, has been mainly driven by the tech sector—software, semiconductors, telecom, and the Internet (chart). These are all what economists call "increasing-returns-to-scale" industries. This means they have high initial costs: writing programs, developing Web sites, or laying fiber-optic cables. But once the initial investment is in place, the costs of serving additional customers are relatively low. Such companies perform marvelously in growing economies because their productivity and profits rise as they expand. But on the downside of the cycle, they are hit by the double whammy of fixed costs and falling revenue, making them vulnerable to sharper drops in profits and jobs than traditional industries.

DEJA VU. Such wide swings have always characterized the semiconductor industry, which historically has gone through big boom-and-bust cycles. But now a big swath of the economy shares the same dynamics. What's more, the strength of the tech sector is covering up growing vulnerabilities, including volatile consumer incomes, high debt levels, and increased dependence on foreign money. Once high-tech growth slows—as it almost inevitably will at some point—these weaknesses will on each other, setting the stage for a serious downturn.

Such fears may seem fanciful or overblown in the mid prosperity and an economy that is growing at a rate of al 6% a year. With the Internet boom coming on the heels o personal-computer boom, the pace of innovation does no seem to be slowing. The global economy is showing sig picking up, which could give U.S. exports a boost. And eral Reserve Chairman Alan Greenspan has demonstrate uncanny ability to navigate uncharted economic waters.

But to many sober economic historians, the current ation is too reminiscent of the economic boom of the 19 when inflation was low and productivity was high. M while, led by the new technologies of the day—automo and electronics—the stock market soared. "There are st parallels, all of which make me worry," says Barry Eic green, an economist at the University of California at Be ley who is a leading expert on both the Great Depres

ILLUSTRATION BY DAVID RODES BW; HISTORICAL PHOTO OF MAN WITH SIGN: GRANGER COLLECTION; PHOTO OF SUV: JOHN S. ABBOTT

he international finan-
rises of the 1990s. "If
elieve history repeats
all the ingredients are
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om today's vantage
it's also striking that
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"Our present control
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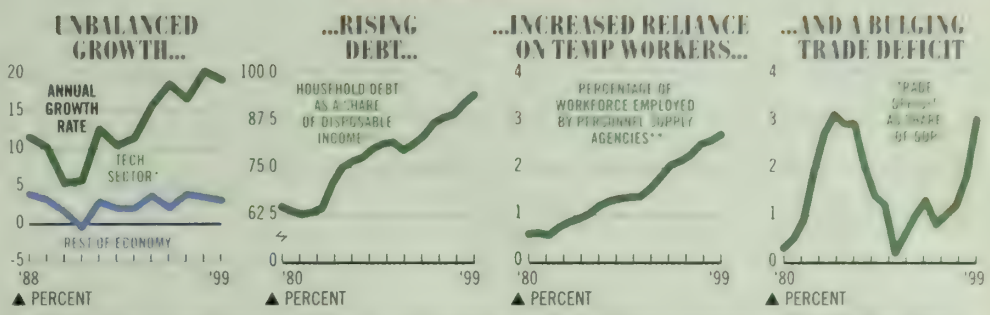
ing a stability which is
ly unprecedented," Rex Tugwell, a prominent Columbia
rsity economist, wrote in 1927. "If this stability can be
ained, one of the worst features of the cycle will have
obviated."

TARY MISSTEPS. Yet in the end, this faith in the Fed
nisplaced. Economists are now in agreement that a se-
f bad policy mistakes by the Fed and other central
turned the stock market crash of 1929 into a pro-
l depression. "We could not have avoided the recession
end of the 1920s," said Peter Temin, an economic his-
at the Massachusetts Institute of Technology. "But

DANGER SIGNALS



*CONSUMER SPENDING ON COMPUTERS AND TELEPHONE SERVICES AND BUSINESS SPENDING ON INFORMATION TECHNOLOGY EQUIPMENT ADJUSTED FOR IMPORTS AND EXPORTS
**BASED ON END OF YEAR

DATA: BUREAU OF ECONOMIC AFFAIRS, FEDERAL RESERVE; BUREAU OF LABOR STATISTICS; BUSINESS WEEK

with better policy, we could have avoided the Depression."

The Federal Reserve has certainly learned a lot about managing the economy since then. Nevertheless, the similarities between the 1920s and the 1990s remain. Just as soaring automobile sales helped power the economy to spectacular heights in 1929, so too is information-technology spending driving the economy now. The rate of growth of tech spending has actually accelerated, from 11% in 1997 to 13% in 1998 to 16% in 1999. Little wonder that the price of tech stocks has soared, while the rest of the market has been basically flat.

But with information technology already absorbing almost half of all expenditures on capital equipment, it will be increasingly difficult to maintain the current double-digit rates of growth. Any sustained slowdown in the growth rate of tech spending—say, to 5%—would immediately force a sharp downward revaluation in the price of tech stocks, and perhaps the broader market.

INCOME INSTABILITY. Now even a market crash cannot bring on a recession by itself. But the impact of a steep decline in equity prices will be amplified by the new instability of consumer incomes. It used to be that the trend of real wages and salaries was fairly stable through expansions and downturns. Businesses were reluctant to quickly fire longtime workers or reduce wages.

But now the income of workers has become much more tied to the ups and downs of the economy and the vicissitudes of the market. During the expansion, base salaries have been greatly augmented by bonuses, stock options, and other types of variable compensation. About 8% of the compensation of managers and professionals is now variable, according to Hewitt Associates, up from 4% in 1991. That means labor earnings could actually drop sharply in the next slowdown, making the recession worse.

> Economists see alarming parallels between today's economy and the boom of the late 1920s that ended with the Great Depression

There are also many more temporary workers who can be released quickly if times turn bad. Almost 3% of the workforce—more than 3 million people—is now employed by employment or temporary-help agencies, double the share at the end of the 1980s. An additional 10% of workers are either independent contractors or temporary workers directly hired by their companies, ac-

cording to a recent paper by Susan N. Houseman and Anne E. Polivka of the W.E. Upjohn Institute.

The typical household balance sheet is also far more vulnerable to a downturn than it used to be. Households now have 54% of their financial assets tied to the stock market, compared with 28% in 1989. Simultaneously, Americans have taken on far more debt (chart). In particular, margin debt has risen by 62%, or almost $90 billion, over the past year alone, running well ahead of the gains in the market. And mortgage debt now equals 43% of the value of owner-occupied housing, compared with only 30% in 1985. So any significant slowdown in the economy may be accompanied by a wave of mortgage defaults.

"EARNINGS CARNAGE." The corporate sector, too, is treading on thin ice. Faced with signs of weakness in demand or profits, the first impulse of New Economy companies is to try to grow their way out of trouble, either by cutting prices or by broadening their offerings. Intel Corp. increased capital spending by 60% in 1990 and another 40% in 1991, despite the recession. And when America Online Inc. ran into trouble in 1996, rather than cutting back, it went on a campaign to expand its user base and started offering unlimited use for a flat fee. Such a strategy, as it spreads to other companies, can smooth out small business fluctuations and prolong the expansion.

But as economists like to say, there's no such thing as a free lunch. New Economy companies depend on a constant flow of innovation, which means that it's hard to cut research and development spending and capital investment. In addition, they have heavily invested in an information-technology infrastructure that needs to be maintained, even in tough times. So when demand really falls off, companies can start bleeding money. "The earnings carnage will be really lethal," says Stephen Roach, chief economist for Morgan Stanley Dean Witter.

Businesses also run the risk of a funding squeeze that would force them to cut back on capital spending and reduce jobs. In recent years, nonfinancial corporate debt has been rising by more than 10% annually. That hasn't been a problem during the expansion—in fact, in an increasing-returns-to-scale economy, it makes sense to take on debt to fund risk-taking when things are going well. But when the economy slows, the debt burden will become oppressive.

Moreover, the supply of funds for new businesses is likely to dry up in a downturn, as it has in the past. That's no small potatoes, since startups received $45 billion in venture-capital funding in 1999, an amount able to fund the salaries of about 1 million workers. The flow of money from overseas—which totaled a stunning $720 billion over the last year, may dry up as well if U.S. growth slows and the stock market stops rising.

Today, most economists believe that appropriate monetary policy can keep any slowdown in check. The banking system and capital markets, they say, are strong enough to absorb even severe shocks. "We could be surprised and have a serious recession," says Frederic S. Mishkin, a Columbia University economist and former research director for the New York Fed. "But w don't see is the kind of tion where the financial s seizes up." Adds Temi great depression like the Depression we had bef impossible."

The economy has never gone through a technology-based recession. Policymakers would be in uncharted waters

Still, Temin acknowl that "it is not out of the tion we could mess u world economy in a new Because the economy has er gone through a tech- recession before, it will b sible for monetary and policymakers to make bi takes. The truth is that still rely on the foreca models that completely m the strong growth and lo flation of the 1990s, and there is no reason to expect the els to do any better on the downside. In addition, the m ly and quarterly data available to guide policy are still f focused on old-line manufacturing. For example, the Census Bureau publishes detailed figures on durable-goo ders, but not software orders.

PERVERSE POLICIES. Another problem: It is often not ob in the early stages of a crisis just how bad things will ge ter the October, 1929, crash, for example, it took a yea businesses and policymakers to realize that the economy not going to bounce back. Similarly, after the Asian cri 1997, the World greatly underestim the impact on in ment and export the affected count

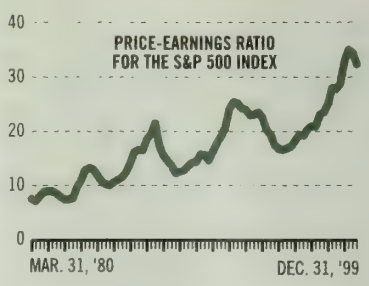
Without clear sig trouble, there is a ger that the Fe Reserve will ini welcome a slowing omy and a decli stock market. downturn is likely accompanied by a f dollar, which will imports more exp and could lead to h prices. A Fed that is bent on fighting inflation may very w tempted to raise rates under these circumstances.

Politics, too, may lead the government to adopt per policies. For example, economists agree that reducing ernment spending is absolutely the wrong thing to do downturn. Yet both Republicans and Democrats have mitted themselves to a balanced budget. If a recession c and the deficit reappears, there will be political pressu cut spending. In fact, Presidential candidate Al Gore BUSINESS WEEK in December that the threat of a b deficit "could serve as an opportunity to push much more matic reengineering of the way government operates."

Such mistakes in policy may be more likely than econo care to believe, especially in times of rapid economic technological change. As much as we try to aim for a r sion-free economy, booms and busts may be part of the of progress.

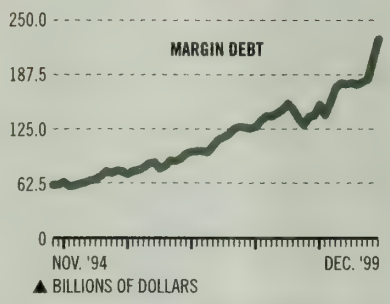
Mandel is economics e

MARKET VALUES ARE SKY-HIGH



DATA: STANDARD & POOR'S DRI

AND MARGIN DEBT IS SOARING



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From March 8-10, 2000, Business Week magazine will host a prestigious corporate finance event in Aventura this ye Florida. A distinguished group of America's top corporate financial leaders will gather at the Turnberry Isl ordant Resort & Club for a private, invitation-only forum to examine the ways in which CFOs can successfully manag he Guar for value and growth in an era of rapid, and often unpredictable, change. Conducted in a retreat-like setting rothers the forum encourages collegial interaction so that participants may gain the well-founded knowledge that tandard only derived from exchanging ideas, sharing experiences and engaging in compelling discussions.

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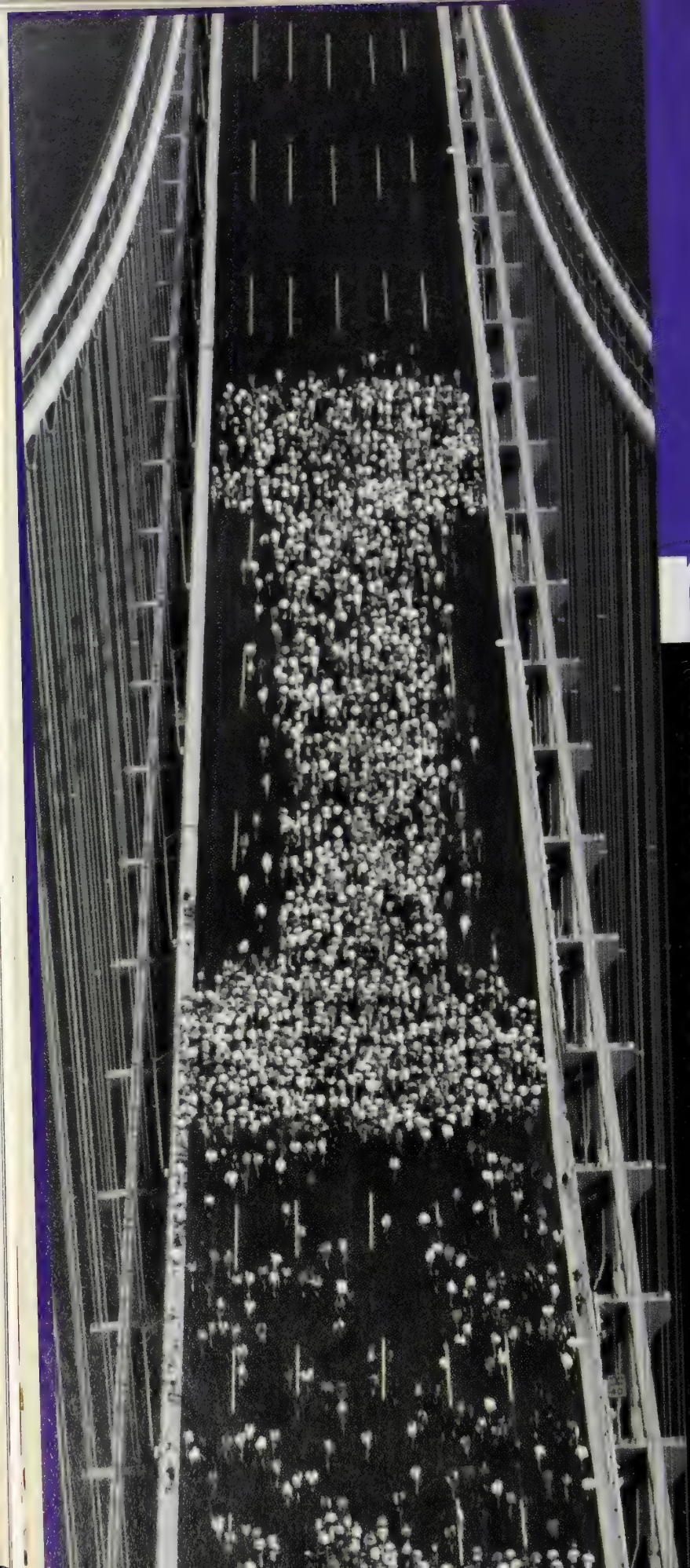
BusinessWeek



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expectations and achieve greater goals. That's
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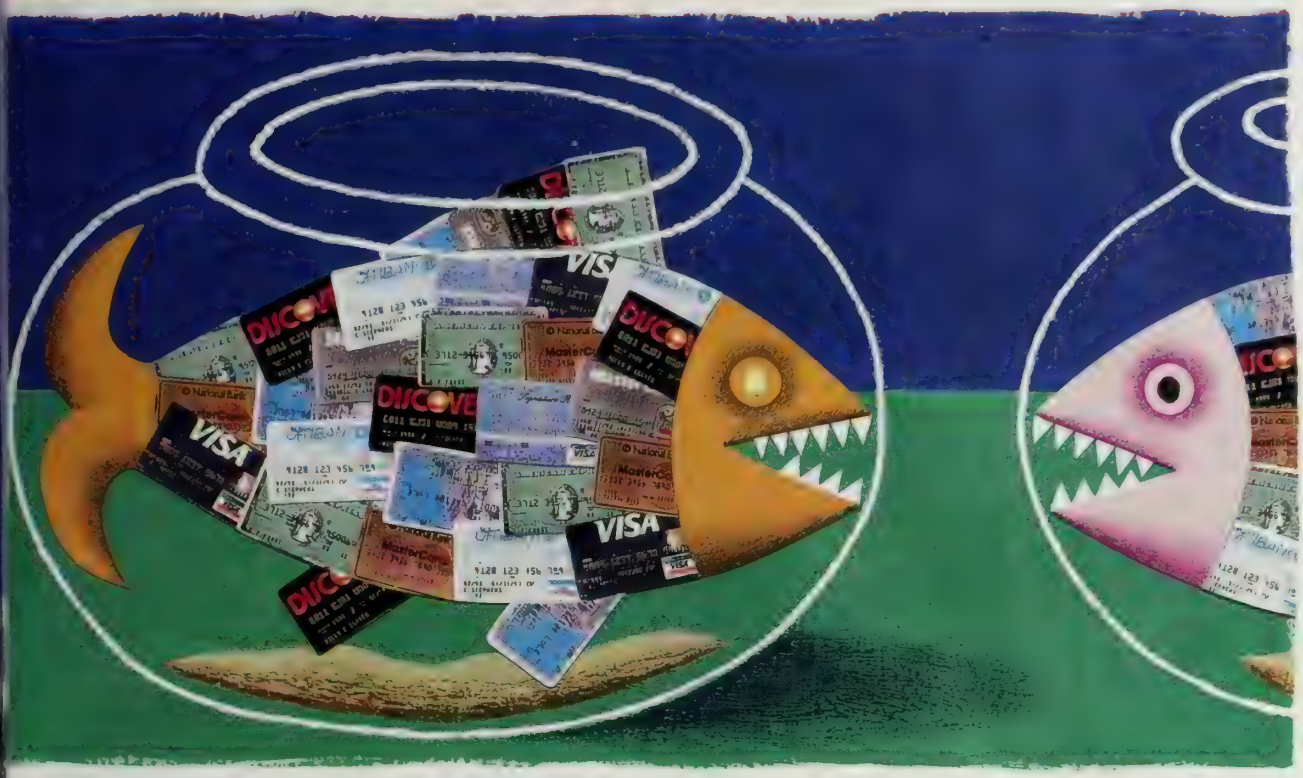


SUMER DEBT

HE PERILS F PLASTIC

getting tougher for credit-card issuers to turn a profit

ter getting a couple of low-rate redit-card offers each week for nonths, Saundra Williams decided ast fall to see if she could do bet- an the 18.5% annual interest rate cards. When she called to bar- she thought she was doing well Citibank promptly offered her a of fixed or variable rates, includ- nifty 10.9%. But Bank of America en better, slashing her rate to nd hiking her credit line to boot. astounded at all of the options ffered me," says Williams, an as- t professor at North Carolina University in Raleigh. "I never of negotiating a rate."

otiate with a credit-card compa- would have been unthinkable a ars ago. But it's happening. For of the players in the industry, are tough. Now that they've sat- the American public with plastic, they're finding it hard to expand. As more and more customers pay off balances each month—"freeloading" in industry parlance—card companies are working harder than ever before to squeeze out a buck.

BARGAIN RATES. But even though overall profits are recovering a bit as bank efforts to regain customers make headway (chart), card issuers still have a hard row to hoe. Credit-card and revolving debt totals $589 billion but has grown little over the past few years.

NO DEBT Since boomers pay off more of their balances each month, companies are targeting younger clients

And Visa International and MasterCard International are fighting an $8.1 billion antitrust suit by Wal-Mart Stores Inc. and other retailers, accusing them of forcing stores to accept their high-cost debit cards. "The game is tougher now than it was 5 years ago, 10 years ago," says David R. Alvarez, president of the credit-card business for eighth-ranked Providian Financial Corp.

For some customers, the industry's woes are just fine, thank you. They mean easier credit, high loan limits, and bargain rates that fly in the face of the Fed's tightfistedness. With so many lenders tripping over themselves to help Americans go into hock, it's no wonder that, as of 1998, some 68% of American families were packing credit cards, according to the latest Federal Reserve figures.

Still, plenty of cardholders are paying though the nose. Miss a payment by a few days? You could be slapped with a $29 late charge, up from an average of $13 just three years ago. And, to drive home the point, your interest rate could be jacked up as an added penalty, perhaps to as high as 30%. Don't use the card much? You might see an inactivity fee and then get tagged with a closing fee if you cut the card up. "We call it a 'fee frenzy,'" says Robert B. McKinley, chief executive of CardWeb.com Inc., an industry tracking ser-

The Net is the newest frontier. Some issuers have cred lines only for Web shopping; others offer lower rates

vice. But such soak-the-customer tactics can backfire. First USA, which now boasts some 50 million customers, has lost millions of them in the last two years, cutting its total outstanding card loans by 1%, to $69.4 billion last year. Bank officials blame consumer anger over such practices as ratcheting up loan rates above 19%, from introductory 3.9% rates, if the borrower paid late just twice in six months. "We lost many of our best customers," William P. Boardman, vice-chairman of First USA parent Bank One Corp, told analysts on Jan. 11.

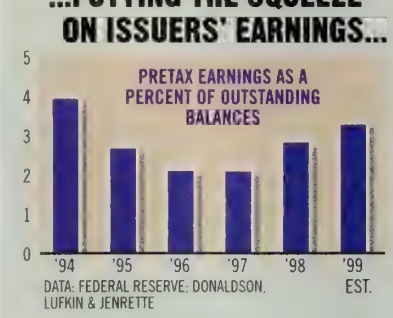
While First USA officials vow to treat customers better, the fallout of its actions could be far-reaching. Bank One's stock has plunged from above $63 a share last spring to under $30 now. Its CEO quit, and the bank is a subject of takeover speculation. "It's a real challenge to turn this organization around," says David Hochstim, an analyst with Bear, Stearns & Co.

First USA's woes will give a boost to its rivals. Weakened, it won't flood mailboxes with low-rate offers at anywhere near last year's pace. It even expects to keep its total of card loans in the market flat or let them shrink as much as 5%, so the competition could carve up an additional $3 billion or so in business. "They'll be much more inwardly focused," says Moshe A. Orenbuch, an analyst with Donaldson, Lufkin & Jenrette Inc. "The intensity of the competition in the industry will decline."

But card companies must still scramble for growth. For some, gains will come from customers that rivals shun, so-called subprime or nonprime clientele. These folks have blemishes on their records—missed payments, even bankruptcies—or lack long credit histories.

INVITATION ONLY. Providian, a hard-charging San Francisco card issuer, finds gold in the nonprime market. It has signed up so many cardholders in the last year that it posted a stunning 66.4% rise in loans outstanding, to $18.71 billion—the biggest gain among the top 10 issuers tracked by *The Nilson Report*. Net income grew 86%, to $550.3 million, as the bank signed up 4.5 million new customers, boosting the total above 11 million, with nearly 30% in the nonprime category.

Of course, smudged credit records do mean it might cost you to get Providian plastic. It levies a steep 23.9% rate on its lower-end customers. Providian pays too—for betting on borrowers others won't touch. Its loss rates are a bit higher than industry norms of about 5.51%, though the rate dropped from 7.58% at the end of 1998 to 6.78% in last year's closing quarter. Its delinquency rate, which tracks borrowers who are at least two payments behind, is nearer industry norms, of just under 5%, at about 5.66% as of yearend 1999.



. . . AND SPURRING THEM TO BOOST REVENUES BY . . .

- Charging higher late payment, foreign use, and other fees
- Trimming grace periods for repayment
- Signing up "subprime" customers with poor credit histories
- Stepping up sales of add-ons, such as insurance
- Adding features, such as computer chips, to cards

DATA: BUSINESS WEEK

Many players are pursuing wealthy customers just as feverishly. American Express is offering the Centurion charge card—which must be pa monthly—to holders of its high-en inum card. The jet-black Centuri fered by invitation only, carries a ping $1,000 annual fee. That get upgrades on the Concorde and sonal counselor for travel needs you get special privileges at N Marcus and Saks Fifth Avenue, such amenities as private sho hours. AmEx officials won't sa many of these cards—which they "niche product"—they expect to s

PROMPT BOOMERS. AmEx is seek broader audience with its four-mon Blue credit card. It has an introdu 0% rate for six months, a regula of just 9.99%, and no annual fee. equips Blue with computer chips at helping do business online. Alf Kelly Jr., president of AmEx's cons card service group, says its core m is younger people who want to "fe cure in shopping both the physical and the interactive world."

Winning younger folks may be cial, since baby boomers are getti be a headache for card issuers. Bo pay off their credit-card balances m ly and jump fast to lower-rate The share of cardholders who pa their balances in full each mont risen from 29% in 1991 to 44% in says CardWeb.com. "They are ge less dependent on revolving cr adds *The Nilson Report* Pres David Robertson. "The demogra are completely against the industr

For all the players, the newest tier is the Internet. Already, som erators offer low card rates not ava by mail. Still others are pioneering it lines available exclusively for Int shopping, such as Citigroup's Click service. In just three months, Cit signed up 80,000 customers. "We very busy exploring the medium," A. Sami Siddiqui, chief of the N America cards unit of Citigroup.

As the growth game toughens, companies will tap every potential Some are even looking abroad, bu operations in Canada, Ireland, Britain. But wherever they go, t have to avoid carrying some of the gage they've picked up lately. Unh customers would rather switch fight.

By Joseph Weber, with Ann Th Palmer, in Chicago

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COMMENTARY

By Jeffrey M. Laderman

RELAX—THE BEAR IS STILL HIBERNATING

The stock market doesn't seem like the layup it was a month ago. All the major indexes have fallen from their January highs (table). Investors are jittery. Some Wall Street wags are even starting to talk about a bear market. Others compose funeral orations for the technology sector and especially the Internet stocks.

Don't hang the black bunting yet. It's only a correction. Such pullbacks are just part and parcel of the stock market. Corrections perform a necessary function, squeezing out some of the excesses that build up in times of rapidly rising stock prices. In the fourth quarter of 1999, the Standard & Poor's 500-stock index was up 15%; the Nasdaq, an incredible 48%.

WHO WILL BUY? Of course, every bear market starts with a correction. So how do you know when a pullback in prices is just that and not the start of a bear market? Look at the nature of the decline in stock prices. If they are falling because a torrent of sellers is rushing for the exit, there may be trouble ahead. If, however, the decline is due to a dearth of buyers, it's more likely a correction than the start of a bear market.

Right now, it appears more like a shortage of buyers, says market watcher Laszlo Birinyi Jr. of Birinyi Associates. Take Jan. 28, for example, the day the Dow plunged 289 points, or 2.6%, but trading volume in the Dow stocks was the lightest since Jan. 13. Or look what happened to Dow stock J.P. Morgan & Co. It dropped more than 7 points, or 6%, even though Birinyi's analysis shows that there were, on balance, only 100,000 shares to sell. "That amount of selling should have knocked only a half a point to a point off the stock," says Birinyi. "But there were no buyers."

Poor business conditions can also turn a correction into a bear market, but that's hardly the case now. The U.S. economy, which grew at an estimated 5.8% rate in the fourth quarter, still has plenty of momentum. About 64% of fourth-quarter earnings have already been reported, and 65% of the S&P 500 companies have beat the analysts' forecasts, according to I/B/E/S Inc. "It's one of the best earnings reporting seasons in the past 13 years," says Joseph Abbott, senior strategist at I/B/E/S.

DOW WIDE: Thin and light trading

The Market's Pullback

	CHANGE SINCE JAN. HIGH*
DOW JONES INDUSTRIALS	–6.7%
S&P 500	–4.1
NASDAQ COMPOSITE	–3.8
RUSSELL 2000	–4.5
GSTI INTERNET INDEX	–17.6

*Through Feb. 2 DATA: BLOOMBERG FINANCIAL MARKETS

The wild card in all of this is the Federal Reserve. On Feb. 2, the central bank raised short-term interest rates one-quarter of a percentage point, a move the market had been anticipating for months. And the Fed's comments suggest that there's at least another quarter-point hike coming in March.

If those are the last hikes, the pressure is off equities, and stocks are likely to resume their ascent. Additional increases could put the market in a holding pattern for a while longer. But unless the Fed squeezes the economy so hard that the hoped-for soft landing turns into a recession, this bull market is not about to end.

Senior Writer Laderman covers the stock market.

BROKERS

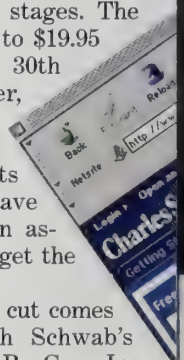
THE PRICE IS SLICED

Schwab heats up the onlin wars with a big rate cut

Charles Schwab & Co. is by fa largest online broker, but it from the cheapest. The $29.95 mission it charges is a turnoff to a traders, who make up less than Schwab's 3.3 million online custo On Feb. 2, San Francisco-based Sc announced it is cutting charges as as 50%.

The move could help Schwab pete with Web-based rivals that ch dirt-cheap fees. Schwab has been fe the pinch from competitors suc E*Trade Group Inc., which charg little as $4.95 a trade for its most a customers. Schwab Co-Chief Exec David S. Pottruck says that son the firm's customers "are placing ond accounts with competitors, an aren't getting the growth in tradin tivity" that competitors are get Schwab's share of daily online tra dropped to 23.3% last year from 2 at the end of 1998, according to Bancorp Piper Jaffray.

ENDLESS QUOTES. Schwab's rate cut comes in two stages. The commission drops to $19.95 after an account's 30th trade in a quarter, and to $14.95 after the 60th trade. In addition, clients will also need to have at least $50,000 in assets at Schwab to get the lower rates.



The commission cut comes hand-in-hand with Schwab's plan to acquire CyBerCorp Inc., a closely held brokerage firm catering to active traders, for about $48 million in stock. Schwab plans to corporate some CyBerCorp feat such as streaming stock quotations its existing services.

Outsiders say Schwab's moves wise. "This lets Schwab say, 'we're conceding anything,'" says Robert goyne, technology strategist at M ment Funds Group. Indeed, Sch didn't become the largest online br by letting its competitors call the s

By Louise Lee in San M

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INSURANCE

THE PLAYER

How Allianz' Schulte-Noelle is shaking up Europe Inc.

Henning Schulte-Noelle
and acts like a money
from Europe's old school
ferring anonymity to n
ety and efficiency over
He runs the giant insure
lianz from unassuming buildings b
Munich University. Allianz has
mounted any hostile takeover
doesn't attempt splashy deals to
headlines—it just quietly and inexo
expands. Today, Allianz is a fina
powerhouse, yet it has managed t
main nearly invisible. "It's what i
ance clients expect," confides Sch
Noelle over *Kaffee und Kuchen* i
muffled calm of his office.

The mounting tumult, in Corp
Europe is about to change all that
Continent is remaking itself. Last
a record $1.3 trillion in deals kicke
a huge restructuring of compani
industries as diverse as oil and tele
But whole swaths of Corporate Eu
remain untouched, and a variety o
tors—from politicians' growing a
tance of cross-border deals to the ri
a euro bond market—are making
form easier than ever. A New Euro
emerging. And Schulte-Noelle will
ly be a key force in its creation.

IN THE CENTER. The Allianz chief
the tools at hand to force a shak
Schulte-Noelle, 57, is a member o
German Establishment. And whe
presses for corporate restructu
what commands attention are the
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man companies from chemicals g
BASF to Dresdner Bank—stakes
Schulte-Noelle can use to influence
next wave of mergers and deals.
sides, over the years, Allianz has a
mulated big holdings in banks and
panies in the rest of Europe as w

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billion, Schulte-Noelle's clout in Europe Inc. is unrivaled. "Allianz is like the spider at the center of the web," says Ralf Dibbern, an insurance analyst with M.M. Warburg, a private bank in Hamburg. "It can pull financial strings across the Continent if it wants."

And the unassuming Schulte-Noelle wants to. He is not some reluctant actor in Europe's unfolding corporate drama. On the contrary, he wants to be a player. He knows that Allianz, powerful as it is, cannot afford to stand still while competitors such as Citigroup, GE Capital, AIG, or France's AXA become global superpowers. He wants to build Allianz up to surpass his rivals in insurance and fund management—a crucial business that he neglected until recently. And he needs to deliver stellar returns to his shareholders.

That means jacking up Allianz' return on equity by two-and-a-half percentage points, to 15%, a difficult stretch for a mainline insurer. To get there, Allianz must buy companies that will strengthen its core operations and learn to wheel and deal with its huge stock holdings.

No wonder market watchers figure this is the year that Schulte-Noelle will pull Allianz out of the shadows. He could launch the long-awaited consolidation of German banks by forcing a merger between Bayerische Hypotheken- und Wechselbank and Dresdner Bank, in which it owns strategic stakes of 17.4% and 21.7%, respectively. He might even fold Germany's second-and third-biggest banks into Allianz itself. That would create a colossus of the size of Citigroup Inc.—and the biggest financial-services outfit in Europe. Allianz could put banks in Spain, France, and Italy into play. Schulte-Noelle could even supercharge the $2 trillion euro capital markets by channeling more Allianz funds into the Continent's burgeoning corporate bond market.

Europe Inc.'s growing acceptance of restructuring will make it easier for Allianz to exercise its clout. So will an unexpected tax break from Germany's Social Democratic Party-led government. Since the 1960s, Allianz has built up big stakes in German companies, mostly blue chips. Selling them off was never really an option since stiff capital-gains taxes of 50%-plus threatened to wipe out most of the profits. But on Dec. 23, Chancellor Gerhard Schröder suddenly promised to abolish the tax.

NO MORE CAUTION. If the repeal comes into force in January, 2001, as expected, Allianz will be sitting on a potential tax-free windfall of more than $40 billion. Simply selling off some of its German portfolio would raise a storm of cash. Just three of its major holdings—pharmaceuticals company Schering, chemicals giant BASF, and energy conglomerate RWE—are worth $6.1 bi

Armed with a huge war c Schulte-Noelle could buy just abou insurance or fund management com that's up for sale anywhere in world. And he will certainly ha be on the prowl. Though Allianz ready a formidable presence in th surance industry (table, page Schulte-Noelle wants to turn A into a truly global business. He'd li make it a major player in third- fund management, though that be easy. He wants to list Allian Wall Street, and will probably do the next two years. "If you're no of the leaders shaping the environ then you could end up being a vic says Schulte-Noelle.

He has already transformed Al a quintessentially cautious Germa stitution, into an international forc even started up a private equity ation that invested $100 millio Fairchild Aerospace Corp. in late cember. But muc mains to be done lianz still depend an alarming thirds of its ar gross revenues property and cas underwriting, a ditionally vol business tha growing much sl than the more l tive life and me insurance secto November, Al was challenged f top position in insurance rank when France's bought control c panese firm Ni Dantai. It is now near the top fi big markets suc the U.S. and Br

Worst of all, major strategic Allianz allowed rivals AXA and Z Financial Servic Switzerland to st march in asset agement—a bus widely forecas boom if Europ and Asians rus invest in private sions and switch savings from ban posits to equity bond markets.

What is the Next Move for Allianz?

STRONG PIECES

Key financials to play for advantage in consolidation

COMPANY	HOLDING	MARKET VALUE* BILLIONS
Germany		
DEUTSCHE BANK	5.0%	$2.6
IKB DEUTSCHE INDUSTRIEBANK	19.9	0.3
AACHENER UND MUNCHENER	4.6	0.2
TOTAL VALUE		$3.1
France		
BANQUE PARIBAS	3.0%	$1.3
SOCIETE GENERALE	2.9	0.7
WORMS & CIE	15.1	0.3
TOTAL VALUE		$2.3
Italy		
UNICREDITO ITALIANO	5.0%	$1.2
ROLO BANCA	4.2	0.4
MEDIOBANCA	2.0	0.3
TOTAL VALUE		$1.9
Spain/Portugal		
BANCO POPULAR ESPANOL	5.2%	$0.4
BANCO PORTUGUES DE INVESTIMENTO	8.9	0.2
TOTAL VALUE		$0.6

DATA: M.M. WARBURG & CO., BUSINESS WEEK

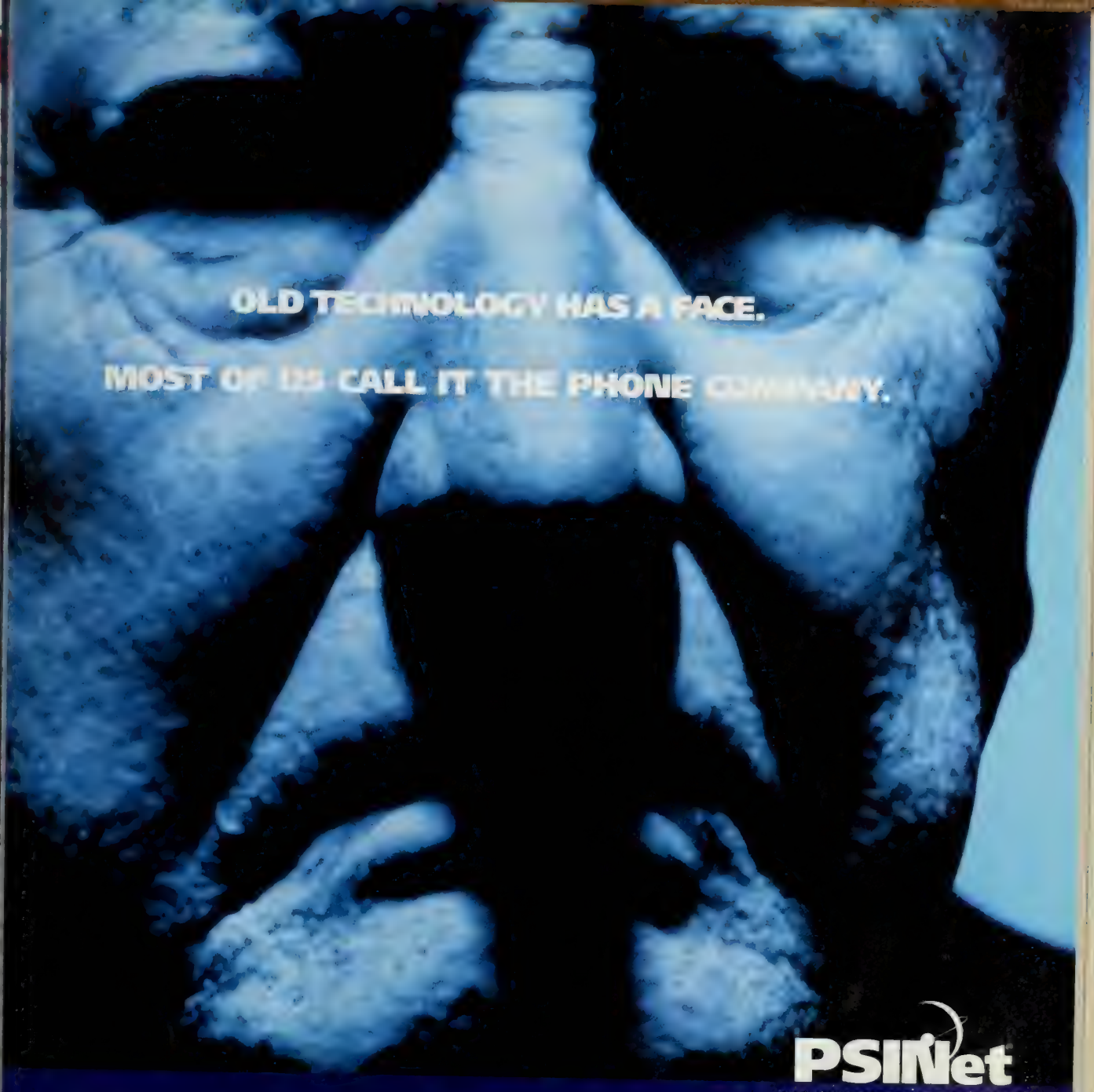
PAWNS FOR SACRIFICE

Industrial companies that it can sell or trade

COMPANY	HOLDING	MARKET VALUE* BILLIONS
Chemicals, Health Care		
BASF	10.4%	$3.4
BEIERSDORF	38.4	2.2
BAYER	5.0	1.7
SCHERING	10.1	0.8
TOTAL VALUE		$8.1
Energy, Utilities, Electronics		
VEBA	10.0%	2.5
SIEMENS	2.6	2.0
RWE	10.1	1.9
VIAG	5.9	0.8
TOTAL VALUE		$7.2
Autos, Engineering		
DAIMLERCHRYSLER	1.1%	$0.9
LAHMEYER	15.2	0.6
LINDE	11.0	0.7
MANNESMANN	0.8	1.0
TOTAL VALUE		$3.2
Retailing		
KARSTADT	14.2%	$0.5

*On Sept. 22, 1999

Allianz also owns stakes in some 20 smaller German and foreign companies that together are worth about $1 billion.



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Schulte-Noelle decided to shell out $3.3 billion for 70% of PIMCO Advisors LP in Newport Beach, Calif., in September (page 138), Allianz managed just $45 billion of assets for third parties such as pension funds and foundations. The PIMCO deal multiplied those assets sevenfold, to more than $300 billion.

So far, Schulte-Noelle seems to have had a knack for making big moves at the right psychological moment. Since the former lawyer and 25-year company veteran became CEO in 1991, he has pushed through 11 major deals and 50 mergers among Allianz subsidiaries. "Allianz may have been a sleeping giant before Schulte-Noelle took over," says the chief financial officer at a rival company. "But now it's wide awake and has plenty of weight to throw around."

Schulte-Noelle brokered Germany's first megabanking alliance, between Bayerische Hypotheken- und Wechselbank and Bayerische Vereinsbank, in 1997. He outwitted Italian insurer Generali to secure a 51.6% stake in Assurances Generales de France in 1998. Last year, he brought together VIAG and VEBA, two of Germany's leading utilities. Such maneuvers persuade many analysts and rivals that he may get what he wants. "Allianz will probably be the only German financial company that will successfully go global," says a senior banker in Frankfurt.

"PRETTY DRAMATIC." Certainly, Schulte-Noelle isn't leaving anything to chance. He hired Paul Achleitner, 42, the mergers and acquisitions specialist from Goldman, Sachs & Co.'s German offices, to become Allianz' CFO on Jan. 1. Achleitner, an Austrian with a Harvard MBA, made his—and Goldman's—name in Europe by privatizing large tracts of East German industry after communism's collapse in 1989. More recently, he was behind the privatization of Deutsche Telekom and a key fixer in the $36 billion merger between Daimler Benz and Chrysler Corp. Putting the Continent's premier investment banker in charge of Europe's largest portfolio of industrial and financial holdings has set pulses racin ready. "[They must be] planning s thing pretty dramatic" says Tom nett, an analyst in the London of Banque Paribas.

You can bet your last euro on Confidants say Achleitner defecte cause he thinks the insurer will p pivotal role in restructuring Corp Europe. But he will have to make better use of Allianz' resources quickly. That will mean selling off of those industrial stakes and pu the money raised to more produ use. "That's why the group's sh rose almost 3% on the day Achle was appointed," says Bennet Paribas. They've gone up another since then.

Allianz' portfolio is not only wieldy, it is far too concentrate Germany—a risky proposition now the euro is in place. In the past t years, Allianz has sold stakes in a ber of companies, including che producer Goldschmidt and Frank BHF-Bank. But Allianz will have to up the pace of such change. "W ready are actively managing ou vestments," says Schulte-Noelle.

As Schulte-Noelle unfurls his st gy, his dealmaking will surely gra tention. But his real focus will be nitty-gritty of building up his insu business. He has to plug some si cant gaps in the U.S. and Brita make Allianz the dominant global er. In the U.S., for example, Allia not even among the top 10 insure and way behind market leaders as Prudential Insurance Co. and state. The Munich giant's business needs attention, too. Less than 40 Allianz' premiums come from th

How the Rivals Stack U

COMPANY	PREMIUM INCOME* BILLIONS	NET PROFITS BILLIONS	RETURN ON EQUITY	COM RATIO
AXA France	$55.4	$1.7	12.8%	102
ALLIANZ Germany	54.9	2.1	12.5	104
GENERALI Italy	37.9	0.8	10.0	117
AIG U.S.	30.9	3.8	15.0	99
ZURICH Switzerland	28.9	0.8***	12.5	108

*Year to Dec 31, 1998 **Expenses and losses as a percentage of pre ums. The lower the number, the better the performance. Source: Comp reports, WestLB Panmure. ***After $2.4 billion merger and restructurin

DATA: COMPANY REPORTS, WESTLB PANMURE

$40 MILLION A YEAR? THAT'S SOME GROSS INCOME

When Allianz agreed to buy PIMCO Advisors, the first question on everyone's lips was: "Can they hold on to Bill Gross?"

They can. But it will cost them $40 million annually over the next five years—on top of his salary—to keep PIMCO's co-founder and star portfolio manager William H. Gross, 55, on the payroll.

WILLIAM H. GROSS

Allianz may be getting a bargain. Gross's renown is such that PIMCO can spend less on ads than its rivals

It may be a bargain. Gross's reputation as a fixed-income fund manager is so high that PIMCO has to spend far less on advertising than its rivals, say industry sources. He gets so many requests for TV interviews that PIMCO had to set up a studio for him in its Newport Beach (Calif.) head office.

Gross manages PIMCO's flagship $30 billion Total Return Fund, the biggest bond fund in the U.S. It has earned an average 9% annual return for the past 10 years—putting it in the top 5% of all bond funds, according to Morningstar Inc., the fund-tracking firm.

In 1999, Gross's funds sucked in $8 billion, or half of all new money invested in U.S. bond funds. The big magnet has been his knack for getting interest rate changes right, including the 1998 cuts and the hikes in 1999.

Gross made his first real money at the blackjack tables, just out of college. He played 16 hours a day for four months, turning $200 into $10,000—a small fortune in the 1960s. After a stint at Pacific Mutual Holding Co., he helped found PIMCO in 1971. Allianz can only hope that if loyalty doesn't keep him there, the extra $200 million will.

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crative life and health business vs. 72% at AXA and 65% at Generali.

Meantime, Schulte-Noelle is on his way toward making Allianz the top industrial-risk insurer and a leading foreign insurer in emerging markets. Last year, Allianz set up shop in China, launched a subsidiary in Vietnam, acquired First Life of South Korea, and established a joint venture in Taiwan.

SCAVENGER HUNT. If Allianz is to have any hope of hitting his 15% return-on-equity target, Schulte-Noelle needs to build up fee income from third-party asset management fast. But in that business he is playing catch-up because he was slow to make his first moves. Before Schulte-Noelle had even opened negotiations to buy PIMCO, archrival Zurich had acquired three major asset management companies in four years and was managing more than $240 billion for third parties. The PIMCO deal propelled Allianz ahead of Zurich and close to AXA—for now. But Allianz could easily fall behind again. All three companies are still on the lookout for acquisitions.

Schulte-Noelle, of course, will soon have plenty of cash to snap up just about whatever asset management or life insurance firm he wants. An he certainly be looking closely at suc ous nesses in the U.S. and Britain. F ver, the real drama will begin w starts to take apart Allianz' h vestment portfolio with Achleit they sell or swap shares in com across the Continent, they co more than anyone else to sha New Europe. Allianz' power, mention its purse, will be unm Schulte-Noelle is about to lose t servative image that he's so ca cultivated for good.

By David Fairlamb in M

PIMCO: A 'QUANTUM LEAP' FOR ALLIANZ

Henning Schulte-Noelle took his time getting into third-party asset management. But the Allianz chief executive took a big step forward when he bought control of PIMCO Advisors LP for $3.3 billion last September. He increased Allianz' business in the sector sevenfold, to $300 billion from $44 billion. He also acquired the services of William Gross, PIMCO's star bond manager, in the process (page 136). "It's a quantum leap," says Klaus Becker, an insurance analyst at Munich bank Merck, Finck & Co.

The move propels Allianz to sixth place in global money-management league tables, from a modest 13th. Including insurance-fund assets, it now manages a huge $630 billion. Natural growth alone will turn that into more than $1 trillion within three years. But Allianz is also likely to pounce on other firms if they become available, paying for them from the sale of old-line industrial companies. "This company is on the move," says Joachim Faber, the board member in charge of asset management.

Maybe. But PIMCO performed badly in fourth-quarter 1999, posting a net outflow of funds for the first time in its five-year history as a publicly traded company. Oppenheimer Capital, its equity operation, fared worse yet. Earnings overall plunged 9%. Allianz executives say they aren't worried: The bond market's recent negative returns led them to expect an outflow of funds, and Oppenheimer's value style of investing is currently out of favor.

Critics also say Allianz paid top dollar and then some for PIMCO. Not so, says Faber. The nearest comparable deal—and the only bigger one to date—was Merrill Lynch & Co.'s $5.3 billion acquisition in 1998 of Britain's Mercury Asset Management. Merrill paid 3.1% of assets under management, the standard measure of the cost of buying such companies. Allianz paid 1.8% of forecast 1999 assets for PIMCO.

THOMPSON

Allianz' foreign clients provide PIMCO with "a great opportunity for development"

HUGE OPPORTUNITIES. Despite PIMCO's recent woes, analysts say the deal still makes sense. Last year's introduction of the euro, plus the growing interest in private pension provision and health insurance, opens up huge opportunities in Europe.

Allianz set its sights on PIMCO late in 1998. "A couple of us chatted o coffee," recalls Faber. "A month l we graduated to dinner." Boat tri off the California coast and eveni at a Bavarian farmhouse followed Allianz believed PIMCO could turn into a global player, while PIMCO betting Allianz would give it easy trée to foreign markets. "We reco nized that European and Asian clients presented us with a great portunity," says PIMCO CEO Willia Thompson.

Now, Schulte-Noelle has to ma Allianz, PIMCO, and Oppenheimer Capital brand names among glob institutional investors. It won't b easy. Archrivals AXA and Zurich nancial Services already are well tablished and determined to grow too. AXA had $655 billion on its b a year ago, of which 42% was ha dled for third parties, and Zurich managed $415 billion, of which so 60% was for third parties. "Whet Allianz can catch up depends on whether they can make a success integrating PIMCO," says a rival.

In the cutthroat world of asset management, even the friendliest deals can easily founder. And kee star managers from walking is a h challenge. As a start, Allianz has fered top PIMCO execs incentives i doesn't provide at home, including $200 million over the next five ye for Gross. "We have learned to liv with different incentive schemes," says Schulte-Noelle. If Gross can peat in Europe and Asia what he' done in the U.S., Allianz' investm really will be worth something. If it's going to be a costly lesson.

By David Fairlamb in Fran

AZINES

AN ANYONE MAKE IFF-DAVIS SEXY?

ut artists Willis Stein t to bring the isher's plodding azines up to Net speed

blishing folk still shake their eads in disbelief over how buyout irm Willis Stein & Partners lipped Petersen Cos., a middling ine group including such titles as d and *Motor Trend*, for a cool $1 profit just 2½ years after buying t was a year ago. Now, Willis s out to work some more media y, shelling out $780 million to buy vis Publishing, whose big titles *mputing* and *PC Magazine* have lumping amid the Net explosion. are these low-profile Chicagoans now? "When they asked Wayne y when he retired what made ch a great hockey player, he said, eople skate to where the puck is. to where the puck is going to ays partner Avy H. Stein. "And what we try to do."

he past year, the blades have arpened at Willis Stein's offices. m has done several deals in pub- but also some in technology- businesses. And after raising an $1 billion in two earli- ls, Willis Stein is in the of putting together a vith up to $2 billion.

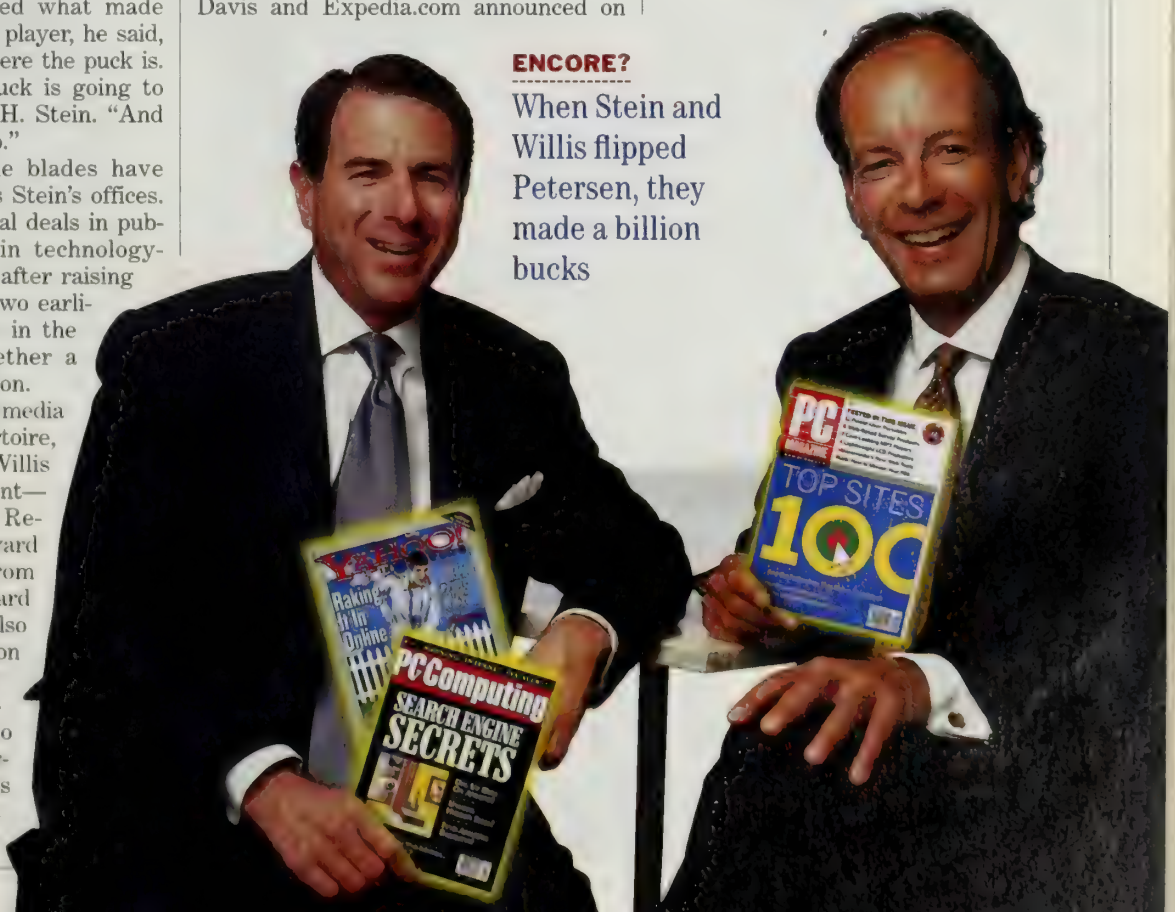
ARIANS. Although media part of its repertoire, Ziff-Davis is Willis largest investment—allenge—so far. Re- its 80 titles toward b and away from r hardware is hard But Ziff-Davis also e peculiar position ing its own way hile continuing to content to the tech-info por- former Ziff-Davis Softbank Corp. is on to. With Ziff-Davis, "there's a lot of possible downside, but it's not clear what the upside is" says a senior executive at a publishing group that declined to bid for it.

Stein, 45, a Harvard-trained lawyer, and partner Willis, a 50-year-old University of Chicago MBA, clearly enjoy a contrarian play. They have tapped veteran publisher James D. Dunning Jr.—who led the Petersen turnaround for them—as CEO of newly created parent Ziff-Davis Holdings. The game plan after the deal's expected close in March: revamp existing titles, create new magazines and spin-offs, and link up with trade shows and other media.

As a sign of things to come, the monthly *PC Computing* will be relaunched in May, tentatively called *Ziff-Davis Smart Business for the New Economy*. Another move: Following the success of its *Yahoo! Internet Life*, Ziff-Davis and Expedia.com announced on Jan. 26 a new bimonthly travel magazine, as yet unnamed, keyed to the Microsoft Corp.-led travel Web site. And the company is already looking at new titles covering the fast-moving realm of music technology. "We are going to build these brands across multiple media," says Dunning.

The presence of Dunning, a onetime president of *Rolling Stone*, gives Willis and Stein an ambassador in the cliquish corridors of New York publishing. They're better known in the buyout world, where they ran the LBO group at the Continental Illinois Bank from 1989 to 1995. After Continental was bought by Bank of America, they went out on their own. In all, over the past 11 years, Willis and Stein have done 37 deals, cashing out on 21. Along with media companies, they oversee businesses in telecommunications, software, manufacturing, and even a veterinary hospital chain. With just six partners and a coterie of staffers, Willis and Stein prefer to stay in the background. "We're coaches, not quarterbacks," says Willis.

TRUCK BABES. They will need Dunning's quarterbacking to spruce up Ziff-Davis. While trendier publications such as *The Industry Standard* and *Fast Company* are thick as phone books from dot.com ads, pages of advertising in *PC Computing* have dropped 26%



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million. But its ad pages are of
over the past two years. The r
While too machine-oriented for
heads, it lost advertising from co
er-resellers that folded under stif
petition from the likes of
Computer Corp. "You're going to
lot of refocusing," says industry e
Martin S. Walker.

Certainly that's the Petersen
book. There, Dunning built on
monthly and bimonthly magazine
quiring or creating scores of
around niche markets. In two
Petersen launched 51 magazines,
ing from the incomparable *Gi*

WILLIS STEIN'S SHOPPING SPREE

Some of the buyout firm's recent media deals

ZIFF-DAVIS PUBLISHING *magazines*: To be acquired by March, 2000, for $780 million

USAPUBS.COM *marketer of m azine subscription services ove the Web*: Formed through acqui tions in July and September, 1999, totaling $97 million

TROLL COMMUNICATIONS *children's book publisher*: Acqui in March, 1999, for $70 millio

PETERSEN COMPANIES *magazines*: Acquired in Septem ber, 1996, for $450 million; so January, 1999, for $1.5 billion

DATA: WILLIS STEIN & PARTNERS

Sport Truck to the better-known
Insider, which hit 1 million in cir
tion. Bought for $450 million, Pete
was sold by Willis Stein to British
lisher Emap PLC for $1.5 billion in
uary, 1999.

With Ziff-Davis, though, the Web
question mark. ZDNet will keep the
clusive online rights to the Ziff-D
magazines' content for three years,
ing the publisher a royalty. But
Davis will control the sites for wha
er new titles it creates. Willis and S
insist this is not problematic, saying
popular ZDNet site will drive traffi
them. "We will obviously have a sig
cant Internet strategy out of the ga
says Stein. If they don't, Ziff-Davis
prove a tougher sell than Willis St
last magazine bonanza.

By Joseph Weber in Chic

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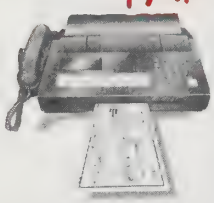

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THE LATEST WEB PHONES, CRASHPROOFING YOUR LAPTOP

BusinessWeek Lifestyle

Web to Go—Sort of

Today's Net phones are O. K. for e-mail, but surfing is a chore

BY ROY FURCHGOTT

MOBILE COMPUTING

Web Phones

Surf on the go. That's the promise of the compact, wireless Web phones that started hitting the market in September. But that promise is far from being fulfilled. When you use these phones, be prepared for lost signals, frequent low-battery warnings, limited content, and a far-from-speedy pace of getting information. Still, wireless Web phones can be handy in a pinch when you have to have a stock quote after hours or need to receive an urgent e-mail while you're in transit.

The phones and their services are improving monthly. Some models I tried actually logged on to the Internet more quickly than my desktop and worked well in limited applications. If you want Web cell-phone access, the cost may not be much more than regular wireless service. Sprint PCS, for instance, charges on top of the cell-phone pac for 50 minutes of Web time an additional 30¢ a minute that. It also sells a combined that can be used for regular phone or Web access. That plan gives 300 utes monthly for $59.99 or up to 1,200 mir for $179.99. Sprint offers the handsets anyw from around $100 to $800, depending on phone. Other carriers in the fledgling field in Nextel, Bell Atlantic, and AT&T.

The primary drawback of Web phones is limited amount of information they are abl get—and the limited number of sites they log on to. Most small screens display only 4 t lines of information, so it's time-consuming to the data. Also, they can't show graphics. To p age information fit for these screens, sites suc Yahoo.com, ABCNews.com, Bloomberg.com,

rade.com have gotten together with phone s to adopt a format called Wireless Appli- Protocol (WAP). The format requires sites to rip out graphics and shorten stories. So far, only a handful of such sites exist.

Another problem with Web phones is that tapping in data on a keypad smaller than two square inches is a trial. A Web phone user has to press a number key with the desired letter on it until the letter appears on-screen.

If you want to type an "L," for example, you have to push the "5" key three times, then wait until the cursor moves one space to show that it's ready for the next letter. I dare you to type an e-mail that way. Software developers are working on a voice-recognition system that will do away with much of the tedious typing. Analysts and carriers say a rudimentary version may roll out in a year to 18 months.

nong Web phones I tested, the silver, 5½- ng Qualcomm Neopoint 1000 boasts a rel- / large 11-line screen. It passed a critical the browser was so easy to use that I got without reading the directions. But like of the phones, it could be confoundedly ry. After hours of being unable to sign on Web, I finally shut the Neopoint off, it back on again, and—*voilà!*—Web ac- I still don't know what the problem was.

GOING. Even easier to use was Denso's point dual band, which can pick up analog s for cell-phone use in areas where digital age isn't good. Of the phones I tried, this roved the most reliable for browsing as s for calling. I could always make a call idn't experience frozen screens or other ating glitches.

other handy, though much larger, model, alcomm's PDQ 800 Smart Phone. It com- a cell phone and a Palm Pilot into one tt can manage all your contact and sched- data in the Palm Pilot operating system, inks up with your PC to update the info. an use Graffiti software, so you're not re- ed to using the keypad. It also isn't re- ed to WAP, as are the more compact phones, can surf the Web using the same lan- —HTML—that your desktop uses, although oing is slow. Still, it can't show graphics. In- , it displays markers where graphics go, the title of the picture in brackets.

e phone that generates the most oohs and because of its small size is the new Motor- imeport—a silver, Web-enabled StarTac. It's not as easy to figure out as some of the others, and its screen allows only four lines. But the screen is also more recessed than the others, so it stays clear of your cheek while you phone. Other screens often come away from a call smudged with makeup or skin oil.

Motorola also makes two gadgets that offer even better solutions to wireless Web e-mail than phones: the Pagewriter 2000X and its soon-to-be released Timeport two-way pager. Featuring minute screens and tiny keyboards, each weighs only 6.7 ounces. The Pagewriter was useful for short messages, although I wouldn't want to draft a contract on it. It also offers a second nifty feature that makes up a bit for its lack of a phone function. It allows you to send an e-mail that goes to a computer, which then calls the person you've selected and reads the message in a computer-generated voice. Remember to spell difficult words phonetically, or it will trip up the machine. A test message to my girlfriend, Guillemette, came out sounding like "gilly meat." Spelling it "key ah met" got me closer to the correct pronunciation. The Pagewriter also had the most dependable signal of the devices I tested, perhaps because it runs on the SkyTel Communications satellite network instead of a cell-phone grid.

LOCATION, LOCATION. Whatever the device you choose, count on a lot of hoopla about Web telephony in coming months. Since midsummer, Sprint PCS no longer sells any other handset but Web-enabled ones. And more sites are looking into developing WAP content. But if the industry wants the technology to spread widely, it needs to increase the transmission speed. That's something companies are focused on, says Mark Desautels, chief executive of Wireless Data Forum, a Washington (D.C.) trade association. He says that in three to five years, Web phones will connect at speeds of 384 kilobits per second, about as fast as a cable modem or DSL phone line. Even before then, Web phones will be able to determine where you're calling from and provide services appropriate to your location, says Richard Siber, telecom analyst for Arthur Andersen in Boston. "I land in Los Angeles, and I want to look up restaurants," says Siber. "I go to the Yellow Pages services in my Palm. I tell it: 'I only want restaurants serving Mandarin Chinese food that are within walking distance.'" Try that trick on your current cell phone. □

OOHS AND AAHS: THE MOTOROLA TIMEPORT

There's sure to be lots of hoopla in the coming months. But if the industry wants the technology to spread widely, it will have to increase transmission speeds

Net Calling

MODEL/PRICE*	WEIGHT	DUAL BAND?	TALK / STANDBY TIME	NUMBERS STORED
DENSO TOUCHPOINT / $200	5.5 oz.	yes	205 min./130 hrs.	300
MOTOROLA TIMEPORT / $300	3.7 oz.	yes	135 min./105 hrs.	500
NEOPOINT 1000 / $400	6.4 oz.	no	150 min./40 hrs.	1,000
QUALCOMM PDQ 800 SMART PHONE / $800	10.0 oz.	yes	150 min./96 hrs.	over 1,000

*From Sprint PCS

Park Your Files on the Net

Companies provide free storage–just for the asking

BY LARRY ARMSTRONG

It sounds like the original dumb idea: free hard-disk space on the Internet, and only a measly 25 MB or so, in an age when a single Zip disk can hold 10 times that and notebook computers come with 100 times as much. But I recently took a closer look. What I discovered was that free Internet disk space has little to do with storage. It's more about convenience and collaboration.

MOBILE COMPUTING

By tucking away your work on a Net company's hard drive, it's accessible anytime, anywhere. You don't have to lug a laptop home from the office. You can get your files from any computer with a Net connection. And you can share files.

Sometimes you can even set up multiple passwords so a colleague can change a presentation while a client can only view it.

Dozens of companies offer free storage. Some are specialized, such as myplay.com, which handles only music files stored in the MP3 format. Others, such as Desktop.com and MagicalDesk.com, give away disk space as part of a suite of office applications, including e-mail, address books, calendars, and reminders. I looked at four that focus on what I need: a place to store and retrieve stuff easily.

The easiest to use are Driveway and FreeDrive. Driveway gives you 25 MB to start; you can earn as much as 100 MB by sharing folders, urging friends to sign up, and filling out surveys. FreeDrive gives you 50 MB. You can share by notifying friends via e-mail. They can view the contents or download files, but they can't upload, modify, or delete them. Of the two, I found FreeDrive more intrusive. Its sign-up process demands personal information, such as age, profession, and interests. Pl can't opt out of e-mail ads that may be t to you, and colleagues who want access folders will have to get their own accoun

To use the free 25 MB at X:drive, you load and install a small program. X:driv acts like a drive on your computer or co network. You can open, edit, drag, and dr from X:drive without downloading the An additional gigabyte of space is $1 month.

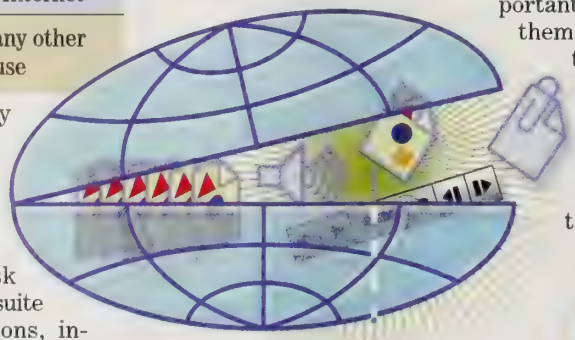
My favorite is i-drive (www.idrive.com installing it is so tricky I almost hesitate ommend it. The company s off giving away drive spa it has added a couple o tools that make it particularly useful fo ping and storing stuff from the Web. It n fers unlimited space for anything you col the Web, though files uploaded from your top must still fit into 50 MB. Web partner as ZDNet Group and MP3.com, can transfe ware and music files directly into i-drive.com account, so you don't have to load and then upload them there (X:drive similar feature with partners such as CNE

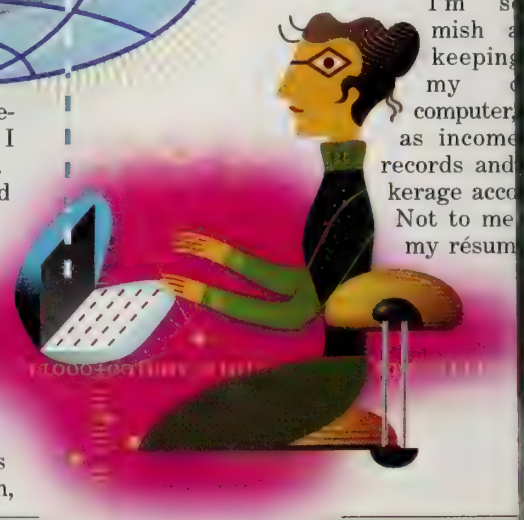
A clipping tool called Filo lets you c pages that ordinarily can't be bookmarke as e-commerce and airline receipts or news stories that will move into paid archives morrow. But while i-drive worked fine wi ternet Explorer, it disabled the Netscape gator browser on my office PC by resetti proxy configuration most companies use staffers onto the Web. Even after I fixed had to call i-drive to get the tool to work.

By now, my little space on the Web is ning to join my daily routine. I've stashe portant files so colleagues ca them while I'm out of the try next month, and get at them even if World phone systems deal with my comp dial-up network. B yet, it gives me a to put personal I'm s mish a keeping my computer as income records and kerage acco Not to me my résum

Who's Offering What

SERVICE	SPACE	COMMENTS
www.driveway.com	25 to 100 MB	Basic storage with limited sharing features
www.freedrive.com	50 MB	Basic storage; friends must register to share
www.idrive.com	50 MB	Unlimited storage for files clipped from the Internet
www.xdrive.com	25 MB	On desktop like any other drive; easiest to use





Like Traveling Abroad Without Your Shots

Foreign stocks are risky–but trading them online is riskier

BY MIKE McNAMEE AND WILLIAM GLASGALL

The Internet can take investors anywhere on the globe. Whether they ought to follow the Web into foreign stock markets is another question. Two new online brokers are extending the reach of online investing to "foreign ordinaries"—stocks in overseas companies that don't trade on U.S. markets. Intltrader.com and Globeshare.com promise near-instant online access to quotes and trading in companies such as Porsche or Tokyo Electron. "If you can get us a symbol, we'll get you a quote and a trade," says Brent Bessire, Intltrader's chief operating officer.

Most experts recommend that you invest a portion of your portfolio—up to 20% for aggressive investors—outside the U.S. Besides diversifying risk, foreign stocks can let you play outstanding prospects, such as the world's top cell-phone makers, and surges in hot markets, such as the 50% rise in Hong Kong's Hang Seng Index in 1999. A handful of global companies list shares in the U.S., such as AirCanada and Elephant & Castle Group. But the main ways for Americans to own a piece of the globe are through international mutual funds or American depositary receipts (ADRs)—exchange-traded certificates representing ownership of stock in such foreign companies as Nokia or Acer.

Stocks

Foreign ordinaries are less accessible. Most retail brokers know next to nothing about stocks that aren't listed on U.S. markets. One exception: Merrill Lynch, which trades some 6,000 foreign ordinaries and makes them available to its customers online or through a broker. Globeshare and Intltrader promise specialized knowledge about overseas investing and extensive research on foreign stocks. They've also worked out thorny back-office issues, such as trade clearance, custody of stock certificates, and translating everything from quotes to dividends from foreign currencies into dollars.

Even so, investors ought to think twice about going offshore on their own. Investors on foreign bourses face such hurdles as taxes on stock trades and looser, less investor-friendly accounting standards. Currency risk is also a major concern. Brokers will sell foreign ordinaries and ADRs in dollars, but those prices are based on

stock that trades in a foreign currency. If the dollar's value rises on foreign-exchange markets—as it has lately against the yen and euro—your overseas equity portfolio will suffer. You'll have to hope that market gains outpace currency losses. "Even if you're a seasoned investor, there's a lot to discuss before you buy stocks overseas," says Steve Chandler, director of Charles Schwab's global-investing service. Schwab won't trade ordinaries online. "If our customers want to trade offshore, they have to talk to a specialist."

How Foreign Stock Spreads Differ

STOCK/ BOURSE	ORDER TYPE	U.S. QUOTE	HOME-MARKET QUOTE
PACIFIC CENTURY GROUP Hong Kong	Buy	$2.42	$2.34
SINGAPORE AIRLINES Singapore	Buy	10.76	10.50
SEGA ENTERPRISES Tokyo	Sell	37.00	38.25
QUEENS MOAT London	Buy	0.37	0.35
AUTONOMY CORP. EASDAQ	Buy	98.00	94.00
VALTECH Paris	Buy	198.57	188.39

DATA: CHARLES SCHWAB & CO.

One of the toughest problems for the global-minded is the clock. Market hours in Europe overlap only briefly with the U. S. trading day, and Asian markets don't overlap at all. Big U. S. brokers, such as Merrill, and specialty firms, such as International Assets Advisory (IAAC)—Intltrader's affiliate—make markets in some ordinaries around the clock. But most such stocks are thinly traded, at best, in the U. S. An American who wants to trade without using No Doz can have immediate execution or access to deep markets—but not both.

Intltrader is betting that traders will want instant gratification. Operating from 8 a.m. to 8 p.m., Eastern time, Intltrader will depend on IAAC and other U. S. market-makers to execute most of its trades in real time. Trouble is, it's risky to make a market in any stock when most of its native investors have gone home. Market-makers cope with that risk by widening their spreads: They'll bid an eighth or a quarter less to buy shares and ask a little more to sell them during off-hours (chart). "After-hours, markets get pretty frothy, and spreads will widen," says Bessire. Those spreads mean investors aren't paying as low a price as the one they might get during the home market's active hours.

Globeshare takes a different approach. It's linking brokerages around the world—now in 15 countries, aiming for 50—under the Globeshare brand. Indeed, "most of ou business will come from foreign investor ing to buy into the U. S. market," says A Carayannis, CEO of Globeshare and its traded parent, Laidlaw Global. The firm erate 24 hours a day, and U. S. custom have three options: Trade during the day U. S. market-maker, place an order for ov execution in the home market, or trade b dinner and breakfast via a home-market

Schwab's execution depends on ord Most of its global orders exceed $10,000 held for execution during home-market Smaller orders tend to go to U. S. mark ers. At all three brokers, investors can themselves from overpaying by placing l ders—a smart strategy even in U. S. ma

Trading costs are tougher to calculate Globeshare charges $25 for a foreign trad local clearing fees (from $20 to $100) an (0.5% of the transaction in London or 0 Sydney, for example). The site spells out fore you trade. Schwab, too, adds expense charge, which is based on its phone-trad mission ($112 for 1,000 shares trading a share, for example), not its online rate. I er's $29.99 fee covers all costs. Both new offer U. S. online trading: Market orde $29.95 at Globeshare and $14.99 at Intltr

Rivals say they see little potential for foreign stocks online. "Our customers do press much interest in foreign ordinaries," PaineWebber spokesman. "Customers will ue to have a higher comfort level with says Thomas Joyce, Merrill's head of global market structures. Other e-brokers, s E*Trade Group, are focusing on overse works to bring foreign investors to U. S. m

While ADRs and global funds add co overseas investing, they also follow U. S for accounting and disclosure. And they'r likely to be tracked by U. S. analysts. T foreign ordinaries without those advant and at an online broker to boot—is a only the most adventuresome investors. F rest of us, Internet investing overseas w main a bridge too far.

Sites for Foreign-Stock Investors

SITE	DESCRIPTION
www.intltrader.com www.globeshare.com	Brokers Intltrader and Globeshare offer online quotes and trades in foreign shares
www.adr.com www.bony.com	J.P. Morgan and Bank of New York sites list and explain ADRs
finance.yahoo.com	Major World Indexes tracks 45 markets
www.fibv.com	International Federation of Stock Exchanges has fees trading data on taxes, rules for overseas bou
www.site-by-site.com	Listings, links, and research on global funds and st
www.zonafinanciera.com	Tracks Latin American markets and stocks

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TEACHING GIRLS THE WAYS OF MONEY

BY TODDI GUTNER

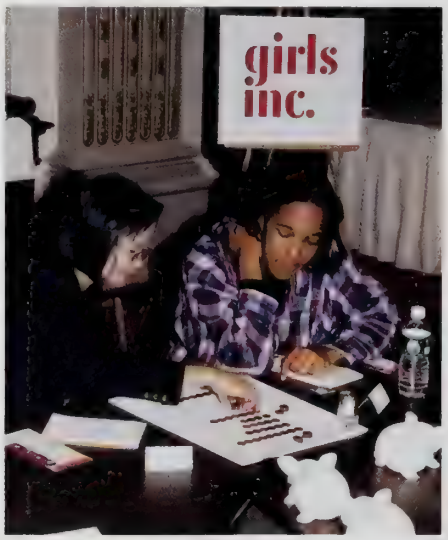
It's never too early to talk to your daughters about finances and investing. Several girls-only programs are available to help

My experience helps explain why so many women are uncomfortable investing. Starting in high school, I often peppered my dad with questions about personal finance and business. He usually dismissed them, saying he hoped my two sisters and I would never have to worry about those things. Later, he engaged his sons-in-law in long chats about investing while keeping conversations with his daughters light, focused mainly on family matters and ski conditions.

He doesn't do that anymore. Now that I've been a financial journalist for 10 years, my father respects my knowledge and confides in me about investments and business concerns. I don't fault him for not teaching us about investing. He came from a generation that believed men would take care of their daughters' financial needs. Today, more parents are schooling daughters early in the ways of money, and more resources are available to do this. Why do girls need special attention? "Boys have informal economies from age 6 by trading marbles and cards, while girls collect," says Joline Godfrey, founder of Independent Means, a Santa Barbara (Calif.) company that promotes economic independence among girls 14 to 24. "By the time boys start trading stocks and bonds, it's just another part of the game."

According to a 1998 Louis Harris & Associates poll of 1,115 ninth through eleventh grade schools, girls and boys are equally intere money and finance, but girls lag behind in edge and confidence. Only 48% of girls, of boys, were willing to learn how to mak ey in the stock market. "A risk-taking g fewer positive cues than a risk-taking b investing is still thought of as a risky tion," says Heather Johnston Nicholson, d of research at Girls Inc., a New York gro icated to empowering girls, which commis the poll. "We need to change the messag

Bibi Schweitzer of Larchmont, N. Y., is year-old girl who got the right message. she was 11, her father, George, taught he the market and gave her $100 to invest public company. She McDonald's. "I thou was so cool that I o part of McDonald's a my money could mak ey without me doin thing," says Schweitz only girl in Mama High School's 40-m stock market club. by annual contributio advice from her fath has since built a $6,00 portfolio that includes Johnson & Johnson, A Online, Estée Laude Coca-Cola, as well as Roe Young Investors Fund. "I buy what I and understand," she



DOING THE MATH: *Classes nationwide*

Girls-only program help. Both ClubInves Camp $tart-up, sponsored by Indepe Means, are worthwhile (table). Broker C Schwab provides financial support and curr guidance for these programs. "Investing ways been an old boys' network, and w are still overcoming that," says Carrie S Pomerantz, founder Charles Schwab's dau who is vice-president for consumer affai head of the women's initiative.

Girl Scouts of America and Salomon Barney host an annual five-day financial for girls in sixth grade and above in Wal Mass. "We want to convey to girls the i tance of being self-sufficient and not r too heavily on others to handle their nest says Meg Greer, a camp co-founder an lomon Smith Barney consultant. Girls Inc an economic-literacy program for girls 6 The 10 weekly sessions, taught at 1,000 nationwide, include stories and simulated market games.

Your daughter could learn about financia ters on her own, as I did. But why not p active role now? She'll be better off later.

For more on women and investing hers.online at www.businessweek. com/inve

Investing 101 for Girls

PROGRAM/SPONSOR	COMMENTS
CAMP $TART-UP Independent Means www.independentmeans.com 805 965-0475	14-day seminar for 13- to 19-year-olds; start a company and learn about money management
CLUBINVEST Independent Means	5-day seminars that teach 14- to 21-year-olds how to invest
FINANCIAL CAMP FOR GIRLS Salomon Smith Barney, Girl Scouts of America, 617 482-1078	5-day camp for 12- to 16-year-olds that teaches investing basics
GIRLS INC. www.girlsinc.org, 212 509-8708	10 weekly money-management sessions at 1,000 sites nationwide for girls 6 to 18

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ARE FUNDS WORTH THE YEARLY TAX BITE?

BY ROBERT BARKER

The way most stock funds have gone up over the past few years, they've been awfully hard to hate. Except right now. Not only have most of my funds started the new year on a downer but my mailman keeps bringing me 1099-DIV forms heralding taxes I'll soon owe on my funds' capital-gains distributions. These taxes shouldn't shock me, but they do, every year. And I know I've got plenty of company. Bob Santoro, Charles Schwab's Vero Beach (Fla.) branch manager, told me he soon expects to see upset fundholders with 1099s "lining up out the door."

If you own mutual funds in a taxable account, you've learned about this the hard way. Tax rules make funds pay out to investors net capital gains realized in their portfolios. You're taxed on them even if you don't sell a single fund share. Hold stock directly, on the other hand, and you see no capital gain—or tax bill—until you sell. You control how much gain to take and when.

This year, I decided to see where I might stand had I bought and held stocks instead of funds. I penciled my way through two scenarios, each covering the four years that ended on Dec. 31 (table). In the first, I imagined having split $100,000 evenly between two good funds, a growth-stock mutual called Harbor Capital Appreciation and a value fund, Dodge & Cox Stock. (I actually own some of both—just not so much.) Second, I imagined having built a stock portfolio, putting $10,000 in each of those funds' top holdings, as disclosed in what had been the latest reports. Next, from Morningstar's database, I figured out each portfolio's value four years, how much in taxes and fees would've paid along the way, and how big a potential capital-gains tax would be.

This unscientific experiment would not set a finance professor's eyebrow twitching to me, it had this virtue: It's just the choice thoughtful individuals ponder when to put a lump sum to work in the stock My results? Surprisingly, despite the drag of operating expenses and fees, the portfolio returned more, before taxes, than individual stocks. Other stocks and other would have performed differently, of course when I looked closely, I did come to appreciate how active management of these funds helped. One stock from Harbor, LSI Logic from the fund's top 10 list within two Good move: It proved to be worst of the drew from Harbor. Ditto with the worst Dodge, Digital Equipment, which they wisely booted in 1998. Now the bad After four years' worth of capital-gains on the funds, owning stocks looked better—$3,890 better.

It's true, as Vanguard Group taxation expert Joel Dickson me, that the stock portfolio bill didn't disappear. It just come due yet. He also noted owning only 10 stocks was probably riskier than owning shares in two diversified funds, and that many index funds succeed minimizing capital-gains distributions taxes. He's right on all counts. Yet even buy-and-hold investor also pays a price diversifying via funds: control over to pay Uncle Sam. Play your cards and some capital-gains bills can disappear ther because they're offset by other they're forgiven if you give stock to or, if you plan on leaving your stock heirs, they get zapped by estate-taxes What is worse, once you pay a capital tax on fund payouts, either by selling fund shares earlier than you might planned on or by tapping a separate money, you've lost capital that might been invested: annual-return compounding on annual return.

What should you make of all this? ther funds nor stocks are always suitable for everyone. But the more money you with which to build a diversified stock portfolio and the longer you're able to put off capital gains taxes, the less likely you'll find yourself ing your investments this time every year.

For a review of Vanguard's new online tax returns calculator, see barker.online www.businessweek. com/investor/ or AOL word: BW Daily.

Funds or Stocks?

My estimates of how two different strategies, begun in January, 1996, would have fared so far

	$100,000 SPLIT BETWEEN TWO NO-LOAD FUNDS*	$100,000 INVESTED IN THOSE FUNDS' TOP HOLDINGS**
PORTFOLIO VALUE ON DEC. 31, 1999	$256,590	$251,750
CAPITAL-GAINS TAXES PAID	9,030	0
BROKERAGE COMMISSIONS	0	300
NET RETURN	147,560	151,450
POTENTIAL TAX BILL ON UNREALIZED GAINS***	17,142	30,290

* Dodge & Cox Stock and Harbor Capital Appreciation

** American Express, Cisco Systems, Citigroup, Digital Equipment (bought by Compaq Computer), Dayton-Hudson, General Motors, Hewlett-Packard, Intel, LSI Logic, and Motorola

*** Assumes 31% income-tax rate and 20% capital-gains tax rate (28% for 1996)

DATA: MORNINGSTAR, BUSINESS WEEK

QUESTIONS? COMMENTS? E-mail barkerportfolio@businessweek.com or fax (321) 728-1711

RICELINE—FOR LESS

NE G. MARCIAL

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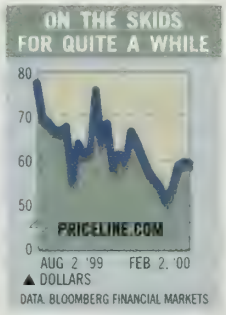
It has been no trek to the stars for Priceline.com (PCLN), despite its TV ads featuring *Star Trek*'s William Shatner. With the market turning its back on many Net stocks, Priceline.com slid from 77 in August to 59 on Feb. 2. But some pros think it has been oversold.

Money manager Vince Carrino of Brookhaven Capital Management believes Priceline.com is on the way back up. "Selling by insiders and early venture-capital investors," he says, "including Paul Allen and General Atlantic Partners, depressed the stock." Delta Air Lines also unloaded its 5% stake. But nothing fundamental was behind the stock's decline, says Carrino. "Here's an Internet company that has beaten analysts' estimates—yet it's way off its high of 165," says Carrino. Priceline.com lets buyers save money by naming their own price.

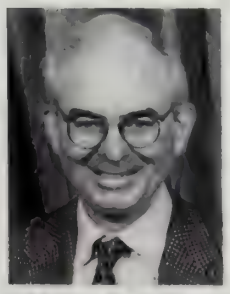


Priceline has developed a "truly revolutionary pricing system" for products from air tickets to phone service, says PaineWebber analyst Sara Farley, who has a 12-month target of 95. It's just the beginning, she adds, noting that Priceline.com can expand into groceries, car sales and rentals, and credit cards. In the fourth quarter, the company added 982,000 new customers, bringing the total to 3.8 million.

Timothy Fogarty of ING Barings expects Priceline.com to maintain its aggressive expansion internationally and into new products. He expects Priceline.com to post a loss in 2000 of 21¢ a share on revenues of $1 billion. For 2001, he sees earnings of 4¢ on revenues of $1.3 billion.

VENTURE CAPITALISTS TO INVEST IN: H&H

There's nothing like ground-floor investing—the way venture-capital pros do it. One alternative: buying shares of undervalued venture-capital companies with big stakes in private entities and companies that they have taken public. One outfit, which some investors think might be the next CMGI or Safeguard Scientifics, is Harris & Harris Group (HHGP). Its stock has bolted from 4 in November to 14 in December, before easing to 11 on Feb. 2.



HARRIS: *A stable full of Net entries*

"H&H is one of the least-known, most undervalued incubators of tech and Internet outfits around," says a New York money manager who has a 6% stake. He notes that, while CMGI trades at 16 times its net asset value, H&H trades at just twice its "understated" asset value of $5.75 a share. (H&H's net asset value is close to $10, he figures.)

Chairman and CEO Charles Harris says H&H invests in startups that are filing patents for new technologies, most of which come from the labs of Massachusetts Institute of Technology. Currently, H&H has stakes in 14 companies, including four it has taken public: H&H owns 4.5% of Nanophase Technologies, which has a market cap of $74 million; 3.6% of SciQuest, with a market value of $1.5 billion; 2% of Alliance Pharmaceuticals, with a cap of $482 million; and 1% of Silknet Software, with $2.3 billion.

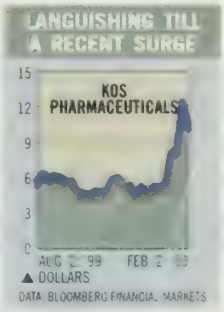
Harris won't comment on which outfit in H&H's portfolio will go public next. But some pros are betting that the two likely to do so this year are NeuroMetrix, of which H&H owns 16%, and 4%-owned Genomica. NeuroMetrix has developed a line of diagnostic devices that analyze neuromuscular disorders. Genomica has software that makes sense of human-genome data. Genomica has licensed the software, called Discovery Manager, to the National Cancer Institute.

One investor estimates that NeuroMetrix is worth $200 million and Genomica $250 million. Based on H&H's stakes in its stable of private and public companies, the stock is worth 20, he says.

KOS TAKES TWO SHOTS IN THE ARM

Kos Pharmaceuticals (KOSP) had been a sleeper, languishing last year between 4 and 5. But it shot up in the first five trading days of the year, to 8 on Jan. 3 from 5. It jumped to 12⅝ on Jan. 24, before easing to 10½ on Feb. 1. What's behind the leap?

Two things: The Veterans Affairs Dept. on Jan. 6 added Kos's chief product, Niaspan, to its national formulary for cholesterol therapy. That means the V.A. system, providing coverage to 3.5 million veterans and including 170 hospitals, is using Niaspan, which lowers harmful cholesterol through controlled-release formulations containing niacin.

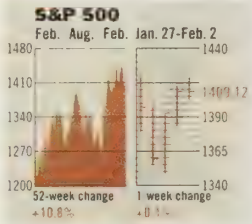


And the company, with little publicity, said recently that Niaspan had been added to the list of drugs approved for reimbursement by health services departments in California and Tennessee.

"With the acceptance by the two states' stringent Medicaid programs, Niaspan is now reimbursable by Medicaid programs in all 50," says Peggy Farley, president of Ascent/Meredith Asset Management. So prescriptions for Niaspan should jump, says Farley. She expects Kos to be in the black in 2001, on revenues that she thinks will at least double, to $26 million. Despite its recent surge, the stock is still undervalued, she says. Farley's two-month target: 20.

BusinessWeek Investor *Figures of the Week*

STOCKS



U.S. MARKETS	Feb. 2	% change Week	Year-to date	Last 12 months
Dow Jones Industrials	11,003.2	–0.3	–4.3	18.6
Nasdaq Composite	4074.0	0.1	0.1	65.4
Nasdaq 100	3724.5	2.9	0.4	79.2
S&P MidCap 400	441.0	–0.2	–0.8	18.0
S&P SmallCap 600	196.4	–2.4	–0.7	14.1
S&P SuperComposite 1500	297.2	0.2	–3.8	12.2
SECTORS				
S&P/BARRA Growth	845.0	0.6	–4.8	15.9
S&P/BARRA Value	590.3	0.1	–3.3	6.5
S&P Basic Materials	124.2	–0.1	–10.1	12.8
S&P Capital Goods	1004.7	–3.3	–9.5	15.6
S&P Energy	821.5	–1.7	–1.5	23.7
S&P Financials	127.5	–0.3	–4.2	–1.3
S&P REIT	74.1	–1.3	0.6	–11.0
S&P Transportation	542.4	–3.3	–9.1	–19.0
S&P Utilities	246.9	0.4	8.7	2.1
GSTI Internet	641.5	–2.8	–10.0	51.8
Morgan Stanley Cyclical	519.1	–2.3	–11.4	10.4
PSE Technology	988.3	0.7	1.7	97.3

GLOBAL MARKETS	Feb. 2	Week	Year-to date
S&P Euro Plus	1535.6	3.4	–1.
London (FT-SE 100)	6302.8	–1.1	–9.
Frankfurt (DAX)	7172.0	2.9	3.
Tokyo (NIKKEI 225)	19,578.9	2.4	3.
Hong Kong (Hang Seng)	15,789.8	2.3	–6.
Toronto (TSE 300)	8769.5	2.2	4.
Mexico City (IPC)	6769.8	–2.2	–5.

FUNDAMENTALS	Feb. 1	Week ago
S&P 500 Dividend Yield	1.19%	1.19%
S&P 500 P/E Ratio (Trailing 12 mos.)	30.1	30.4
S&P 500 P/E Ratio (Next 12 mos.)*	23.7	24.1
First Call Earnings Surprise*	5.05%	6.16%

*First Call Corp.

TECHNICAL INDICATORS	Feb. 1	Week ago
S&P 500 200-day average	1358.0	1356.2
Stocks above 200-day average	25.0%	26.0%
Options: Put/call ratio	0.50	0.45
Insiders: Vickers Sell/buy ratio	0.71	0.67

COMMENTARY

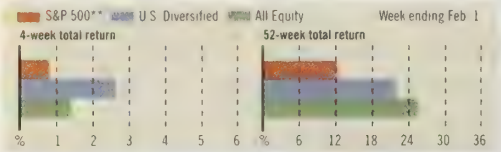
It was a week that left many an investor queasy. On Jan. 28, the Nasdaq Composite Index suffered its second-biggest point loss ever, dropping 3.8% and the Dow Jones Industrial Average fell 2.6%. But the stock market rebounded, holding on to its gains even as the Fed bumped short-term interest rates up by a quarter of a percentage point on Feb. 2.

Data: Bloomberg Financial Markets

BEST-PERFORMING GROUPS	Last month %		Last 12 months %
Defense Electronics	21.4	Instrumentation	196.0
Natural Gas	20.2	Oil & Gas Drilling	87.4
Instrumentation	19.9	Communications Equip.	83.7
Entertainment	16.6	Defense Electronics	83.3
Semiconductors	14.7	Semiconductors	74.7

WORST-PERFORMING GROUPS	Last month %	
Conglomerates	–19.6	Pollution Control
Leisure Time	–18.0	Office Equip. & Supplies
Metal & Glass Containers	–17.4	Tobacco
Forest Products	–17.0	Toys
Furnishings & Appliances	–16.7	Food Chains

MUTUAL FUNDS



Data: Morningstar, Inc. **Vanguard 500 Index fund

EQUITY FUND CATEGORIES

Leaders Four-week total return	%	Laggards Four-week total return	%
Health	16.5	Precious Metals	–7.7
Small-cap Growth	6.5	Diversified Pacific/Asia	–6.6
Utilities	5.9	Japan	–5.9
Mid-cap Growth	5.9	Pacific/Asia ex-Japan	–5.2
Communications	4.3	Foreign	–3.3

Leaders 52-week total return	%	Laggards 52-week total return	%
Technology	105.9	Precious Metals	–7.3
Japan	97.8	Financial	–5.6
Diversified Pacific/Asia	85.9	Real Estate	–2.0
Pacific/Asia ex-Japan	76.8	Mid-cap Value	1.7
Diversified Emerging Mkts.	73.5	Large-cap Value	2.2

INTEREST RATES

KEY RATES	Feb. 2	Week ago	Year ago
MONEY MARKET FUNDS	5.36%	5.36%	4.63%
90-DAY TREASURY BILLS	5.65	5.58	4.48
1-YEAR TREASURY BILLS	6.20	6.15	4.59
10-YEAR TREASURY NOTES	6.58	6.69	4.83
30-YEAR TREASURY BONDS	6.29	6.60	5.25
30-YEAR FIXED MORTGAGE †	8.43	8.23	6.78

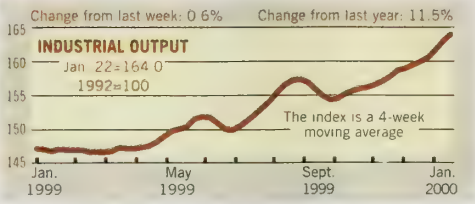
†BanxQuote, Inc.

BLOOMBERG MUNI YIELD EQUIVA

Taxable equivalent yields on AAA-rated, tax- municipal bonds, assuming a 31% federal t

	10-yr. bond	30
GENERAL OBLIGATIONS	5.25%	
TAXABLE EQUIVALENT	7.61	
INSURED REVENUE BONDS	5.36	
TAXABLE EQUIVALENT	7.77	

BW PRODUCTION INDEX



Information on each of the index components is at www.businessweek.com.
BW production index Copyright 2000 by The McGraw-Hill Companies

The production index continued to r week ended Jan. 22. The unaveraged also up, by 0.5%, to 165.1 from 164 ago. After seasonal adjustment, outpu electricity, and rail-freight traffic incre cause of revisions made to the Federal industrial production data, the BUSIN production index has been refigured f two years. The revised data can be do at www.businessweek.com (or AOL, BW) in the search & download area.

THE WEEK AHEAD

INSTALLMENT CREDIT *Monday, Feb. 7, 3 p.m. EST* ▶ Consumers likely took on $7.9 billion in new debt in December, says the median forecast of economists polled by Standard & Poor's MMS, a unit of The McGraw-Hill Companies. November credit jumped by $15.6 billion, one of the biggest gains on record. The borrowing binge reflects high consumer optimism about the economy as well as the growing wealth effect: Rising stock portfolios help people feel comfortable about high debt loads.

PRODUCTIVITY & COSTS *Tuesday, Feb. 8, 10 a.m. EST* ▶ The S&P MMS survey forecasts that output per hour worked in the nonfarm business sector grew at a strong 4% annual rate in the fourth quarter. That follows an even stronger 5.1% advance in the third quarter. The increase is indicated by the surge in output at the end of 1999. The expected rise would mean that productivity increased by 3.1% for all of 1999, the same healthy pace posted in 1998. Unlike in 1998, however, labor costs in 1999 began to accelerate at yearend. That suggests that unit labor costs grew at an annual rate of about 0.6% in the fourth quarter, or about 1.5% for all of 1999.

RETAIL SALES *Friday, Feb. 11, 8:30 a.m. EST* ▶ Economists and policymakers at the Federal Reserve are watching closely to see consumers kept spending as robustly in ly 2000 as they did in late 1999. The dian forecast of the S&P MMS survey exp that retail sales increased a healthy 0.4 January after jumping 1.1% in Novemb and 1.2% in December. Excluding moto hicle purchases, store receipts likely ad vanced by 0.5% last month, on top of a 1.4% jump in December.

BusinessWeek ONLINE

For more investment data and the components of the production index, visit www.businessweek.com.

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x gives the starting page for a story or with a significant reference to a company. bsidiaries are indexed under their own names. es listed only in tables are not included.

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Tuesday

Are semiconductor stocks as hot as ever? Ask Thomas W. Smith, who tracks that arena for Standard & Poor's, in a chat co-hosted by S&P Personal Wealth. **Feb. 8 4:30 p.m. EST**

Thursday

If small-cap stocks and IPOs turn you on, join Robert S. Natale, manager of the S&P STARS Portfolio fund. His new book, *Fast Stocks, Fast Money,* tells how to play those games but still follow the principle of growth at a reasonable price. **Feb. 10 9 p.m. EST**

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LESSONS OF PROSPERITY

When this expansion started in 1991, the U.S. was thought by most experts to be a mature, or even aging, economy, suffering from too much debt, not enough savings, and too little long-term planning. The dominant view was that of "declinists" such as Paul M. Kennedy, author of the best-seller *The Rise and Fall of the Great Powers*, who argued that the era of U.S. economic and military supremacy was over. The future held mediocrity, at best.

Yet the declinists turned out be very wrong. Americans have prospered beyond what anyone would have imagined 10 years ago. Here are the lessons of the long expansion:

■ **Innovation is essential.** With the Internet Revolution in full swing, this may seem obvious—but it was not a view shared by most economists in 1991. The consensus then was that the great era of innovation was over, and that the only way to grow was the steady but slow route of prudent savings. The boom has since shown that, both in the U.S. and elsewhere, only an emphasis on technological and business innovation and creativity can produce rapid rates of productivity growth.

■ **Good policy matters.** Federal Reserve Chairman Alan Greenspan has been justifiably lauded for balancing anti-inflation monetary policy with a willingness to let the country grow. And despite partisan squabbling, Republicans and Democrats in Washington also deserve a lot of credit for a spectacular string of good policy decisions in the late 1980s and early 1990s: agreeing on the savings and loan bailout, the passage of two free-trade measures, deregulation, the combination of spending caps and tax increases that helped balance the budget, and welfare reform. Without these measures, it is unlikely that the expansion would have been as l as prosperous.

■ **Recognize the importance of the financial markets.** cally, economists have focused on productivity gr something that happens within companies. But on biggest advantages of the U.S. economy in the 19 been the depth and flexibility of its capital mark strong venture-capital and initial public offering have enabled innovative companies to receive fundi unprecedented rate. Meanwhile, mutual funds an plans have spread the stock market wealth more That's not just an economic issue; it's politically impo well. Not everyone can be the CEO of a dot.com, but can buy stock in one.

■ **Don't get complacent.** It is tempting to believe that t has entered an era of permanent prosperity. Yet the ences of the past decade show just how fast thi change and just how often the consensus view was w 1990, Japan was supposed to be the economy to beat. it only managed to produce a decade of stagnation. So similar could happen to the U.S. as well.

Rather than simply celebrating the record exp America needs to stay focused on the policies that bring it about. That means continuing to keep inflati the budget deficit under control, encouraging inn and education, and letting the financial markets f with a combination of enlightened regulation and op That's the best way of ensuring that the boom keep as long as possible.

GERMANY IS ON THE MOVE—FINALLY

On the surface, it's almost impossible to see how Germany could be any kind of model for the rest of Europe. Helmut Kohl, the mighty former chancellor who stitched up the open wounds of his divided nation, is now roundly vilified as a mere backroom politician taking money from arms dealers and friendly foreign leaders. The Christian Democratic Union party is in tatters. And economically, the strong deutschemark has been largely replaced by a weak euro. Meanwhile, France and Britain show healthier economic growth than their powerful neighbor.

But look again at Germany Inc. Rhineland Capitalism—that often-rigid model of social consensus and behind-the-scenes dealmaking among big business, trade unions, and politicians—is cracking wide open. Change is in the air everywhere you look. That jewel of Corporate Germany, Mannesmann, is trying to fight off Britain's Vodafone AirTouch PLC not by appealing to German politicians and unions but to its shareholders, whether they are in Dusseldorf or Detroit. Frankfurt's booming Neuer Markt is aiming to be the European Nasdaq for thousands of eager entrepreneurs. Mea sweeping changes are being proposed for Germany's co tax code aimed at removing the stiflingly high capita taxes paid when companies sell stakes in other com These changes could usher in the most profound restr ing of German business since World War II. And a qui tural revolution is underway at the country's 385,00 vately held companies, now starting to realize that grow in tapping more and more muscular capital markets.

Germany, in fact, is starting to move. And from b drag on the modernization of Europe, Germany coul well soon become the model and the pacesetter. If Berl now step up to the plate and tackle thorny problems s needed pension reforms, the impact on the rest of E could be profound. When smaller European countries s Ireland and the Netherlands adopt successful high-g stategies, few notice. When Europe's largest economy the planet's third mightiest—adopts them, the effect co electrifying.

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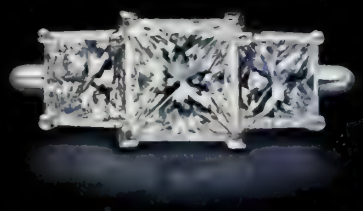

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Businessweek

BRUARY 21, 2000

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CYBER CRIME

First Yahoo! Then eBay. The Net's vulnerability threatens e-commerce—and you.

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BusinessWeek

FEBRUARY 21, 2000

Cover Story

36 CYBER CRIME
It's so easy, it's creepy. The darkest lesson of the wave of Web break-ins in recent days is that all anyone needs is a tiny, readily available program and a little knowhow. And while no one is predicting the Net's imminent shutdown, experts are seriously asking whether tricks such as these could jeopardize the Web's explosive growth

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COVER PANEL (TOP TO BOTTOM): PHOTOGRAPHS BY (NIKE) WILLIAM COUPON/LAISON AGENCY, (THAILAND) NATHAN BARKAT; ILLUSTRATION ABOVE BY RUB DOYLE BW; (AMAZON) THE MANAGER FOCUS MATRIX (SATURN CAR) NO CREDIT; ILLUSTRATION (SOFTWARE) BY JOSEPH DANIEL FIEDLER; LARGE COMPUTER

R STORY

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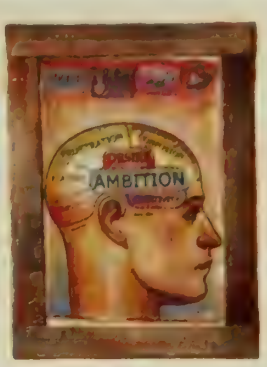
Amazon may see profits by 2002 page 78



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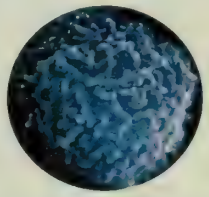

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Koo says the key is no keyboard

e Corporation

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l makers of midsize sedans are ing its once-loyal customers

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Phil Knight is struggling to remake shoemaker from top to bottom

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's ads aim at a new image

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Up Front

EDITED BY ROBERT McNATT

TALK SHOW "I know it's not always going to be an ea campaign—but aay! This is New York"

—Hillary Rodham Clinton, announcing her candidacy for t U. S. Senate in New York

EXECUTIVE MOVES

THERE WON'T BE A BAIN DRAIN

BIG CONSULTING FIRMS HAVE recently seen their ranks depleted by defections to the option-rich dot-coms. At Andersen Consulting, for instance, the top dog left to sell groceries at a Net startup. But Bain & Co. says that won't happen there.

TIERNEY

On Feb. 14, there will be a change of command at Boston-based Bain, but this one involves no unseemly scrabbling for Net riches. The boss, worldwide managing director Thomas Tierney, 45, is quitting in part because he wants to make way for hotshot John Donahoe, 39, although he will stay to work on a plan that may keep other Bainies on board—by appealing to their consciences. Meanwhile, the new guy, a 16-year Bain veteran, is an expert in—what else?—electronic commerce. He has run the West Coast office and helped start bainlab, Bain's Internet venture-capital arm.

DONAHOE

With demand high for e-biz talent, Tierney says one reason he stepped aside, a surprise move, was to make sure Donahoe stayed. "It wasn't obvious that [Donahoe] would be around in three years," he says. Tierney, meanwhile, will chair a new Bain unit he started that will offer affordable consulting to nonprofit groups. *Jennifer Reingold*

PIT STOP: *The car placed 50th*

CAMPAIGN 2000

LOST KEYES AT DAYTONA

HE FINISHED THIRD IN IOWA, fourth in New Hampshire, and last in Delaware. But how did Presidential wannabe Alan Keyes do in Daytona, Fla., where the race is between cars, not candidates? Not so good. Then again, Keyes is used to sucking the front-runners' exhaust fumes.

Although the conservative GOP candidate is noted for his oratorical skills, few realize that Keyes is also a racing aficionado. He got the bug in Iowa last year when a supporter gave him a ride around a dirt track for a photo op. By Feb. 5, Keyes was working the crowd at the Rolex 24 Hours race in Daytona. He wasn't just trolling for votes in advance of Florida's primary. He was rooting for car No. 9, a sports-racer from the Bobby Brown Motorsports team of Lexington, Ohio—sporting a "Keyes 2000" decal.

But how did the thinly financed Keyes campaign find the cash to compete with the dot-coms, the big-money sponsors at Daytona? His campaign says that the team owners are fans of the former radio talk-show host, so the campaign received the placement for only a "token payment." Evidently, they got what they paid for. The car finished 50th. *Lee Walczak*

PAPER PLAYS

ANOTHER TAKE ON TECH VALUATIONS

THINK TECH COMPANIES' MARKet caps are absurdly high? Think again, says CEO Michael Ruettgers of EMC, a data-storage systems company.

Ruettgers has looked at the evolution of computers, from mainframes in the 1970s to PCs in the '80s and '90s to the current wave, where networks lead the way. He estimates each new stage means not only more computer users but a tenfold rise in market value for companies central to the newest stage.

ALWAYS ANOTHER BIG THING

COMPUTER ERA/ PEAK TIME	MARKET VALUE CREATED (BILLIONS)
Mainframe/1980	$80
PC/1998	800
Network/2012	8,000
Content/2025	80,000

DATA: MICHAEL RUETTGERS, WAVES OF POWER BY DAVID MOSCHELLA

When big iron ruled in IBM's heyday, the market value created was about $80 billion, Ruettgers calculates. The rise of PCs, nated by Microsoft and built ten times as much ket value—around $80 lion. Today, networking panies like Cisco Sys Nokia, and America are contributing to an tenfold increase, to $8 lion. What's next? The tent wave, creating $80 lion in market value. companies will benefit early to know, he says.

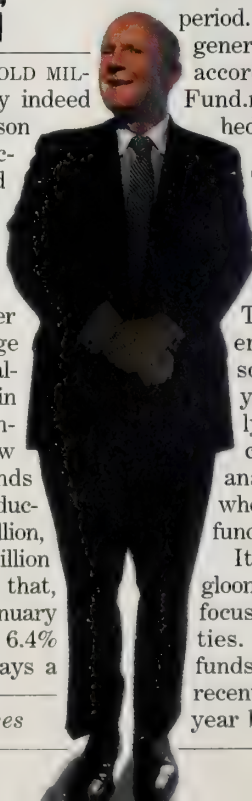
His ex is not en altruistic. market c $116 billio its price-ings ratio 100. enough to some inve nervous. Ruettgers "there's still quite a h headroom," arguing that can benefit from co trends. All that info has stored someplace. *Paul*

FUND FRONT

TIGER, TIGER, BURNING DIM

THE END OF THE OLD MILlennium was lousy indeed for Julian Robertson Jr., the once-successful hedge fund manager. The beginning of the new one doesn't look much better.

Robertson's Tiger Management hedge fund group had already fallen 19% in 1999. Then investors withdrew $1 billion in funds early this year, reducing assets to $7 billion, from a peak $22 billion in 1998. On top of that, performance in January was weak—off 6.4% through Feb. 4, says a company spokesman. Standard & Poor's 500-index fell only 3% in the period. And hedge fun general actually rose according to He Fund.net, a Web-b hedge fund index.



ROBERTSON: *Losses*

A major reaso Tiger's losses w big stake—16.5 lion shares—in Air, whose fell 32% in Jan Tiger has also los ent as returns soured. In the year, about 20 lysts have left cluding star bar analyst Tom Br who is starting his fund.

It's not all doom gloom, though. Tiger focuses mainly on ties. As a result, funds were not hur recent troubles in th year bond. *Gary*

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Up Front

I-WAY PATROL

CAN THE CAPS SCORE WITH THE NET?

FORD AND DELTA AREN'T THE only companies handing out PCs. When top America Online executive Ted Leonsis bought the Washington Capitals in May, he wasted no time getting the hockey team wired. Each employee got a free laptop. The players even got free AOL accounts. Leonsis wants the Caps to be the most Web-savvy of pro sports teams. He also sees Washingtoncaps.com as a major revenue source.

LEONSIS: *Getting an assist from Jordan*

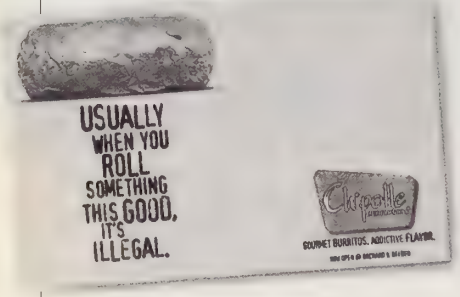
Each player now has his own bulletin board. Leonsis himself has answered some 7,000 e-mails about everything from high ticket prices to cold hot dogs. So he posted the 125 top gripes and began addressing them. "I want to remove every impediment a fan has from falling in love with my team."

Love is nice. But to build e-biz, site traffic is better. That is what Leonsis is doing. In three years, he says revenue from ads and sales on the site could surpass that of the Capitals' TV contract. (He declined to disclose that amount). Leonsis is also counting on the star power of Michael Jordan—his newest partner in the National Basketball Assn.'s Washington Wizards—to attract folks to all his online sports sites after No. 23's contract with SportsLine.com ends in 2007. *Catherine Yang*

MAD AVE

FAST FOOD FOR THE MUNCHIES

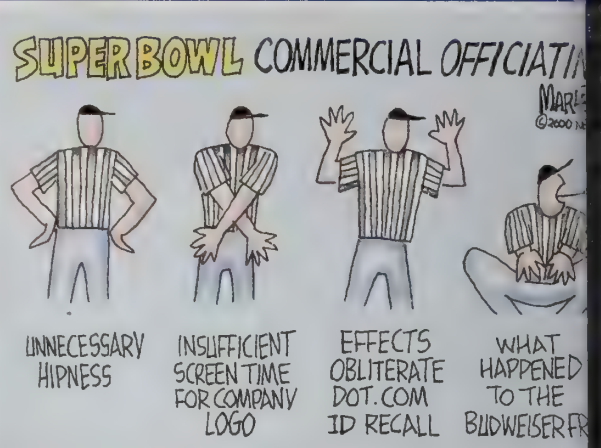
THERE'S NOTHING SUBTLE about recent ads for Chipotle Mexican Grill, a restaurant chain whose controlling stockholder is McDonald's. The ads show a package of Mexican food wrapped in foil, looking suspiciously like a package of marijuana wrapped for transit. In case you don't make the connection, the ad copy spells it out: "Usually when you roll something this good, it's illegal." The only other text? "Gourmet burritos. Addictive flavor." The ads have run in 100,000 papers in the Chicago and Denver editions of *The Onion*, a satiric newspaper.



Chipotle, a Denver-based chain of 50 restaurants, is clearly targeting twentysomethings, not moms in minivans trolling for Happy Meals. Nevertheless, many people are upset that family-friendly McDonald's is connected with the drug-themed ads. "A company as conservative as McDonald's is to some extent hypocritical with these ads," says Dr. Alan Ravitz, a drug abuse counselor and University of Chicago psychiatrist who dislikes the ads.

But the edgy spots seem to be working, says Chipotle. And McDonald's, though it could exercise oversight, says it will not demand that they be pulled. *Michael Arndt*

DRAWN & QUARTERED



FAMILY MATTERS

DEADBEATS IN THE PAYROLL DEPARTMENT

DEADBEAT DADS AREN'T THE only stumbling block to meeting child-support payments. There are also deadbeat employers—or at least uninformed ones. Although no one yet has hard numbers, Debrera Salam, director of Ernst & Young Payroll Information Services in Houston, says a worker's credit rating can go south when employers who deduct child support directly from paychecks don't promptly send out the money. Warns Salam, "It's a lawsuit waiting to happen."

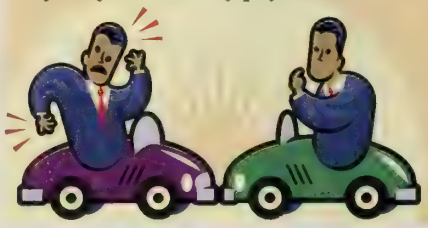
Companies typically send out child-support checks on a monthly basis. But for employees paid bimonthly or weekly, this violates a federal law mandating payme ter each paycheck. In states, such "late" pay are reported to credi reaus. Result? Salam of a man who failed a check while buying a gagement ring—with ancée looking on.

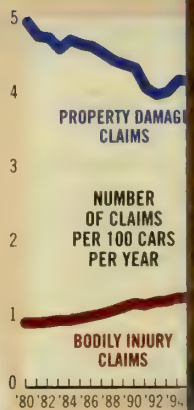
Although the feder fice of Child Support forcement denies the pr is widespread, it says working with the stat "get the word out" t ployers about how should remit support ments. *Joan O*

THE BIG PICTURE

CRASHING LESS, HURTING MORE

Auto accidents have decreased dramatically over the past decades—17% from 1980 to 1998. But more people are claiming injuries as a result of auto accidents. Insurers say they see an easy payoff.





FOOTNOTES Americans who say mergers produce "better quality products": **29%**; who said this in 1995: **18%**

DATA: ROPER STARCH WORL

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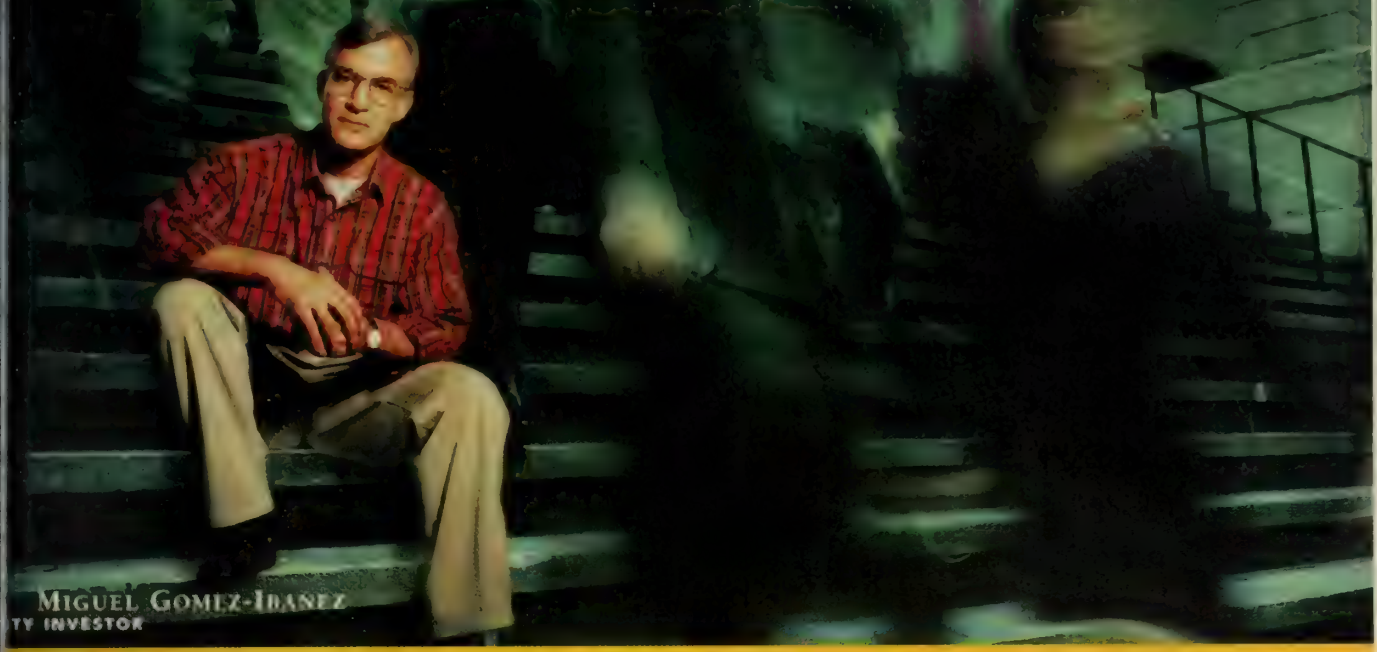

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A WOMAN'S PLACE IS AT THE FINANCIAL CONTROLS

I applaud Toddi Gutner's new column, focusing on women's personal money issues ("Women's investing: *Vive la différence*," Business Week Investor, Jan. 31). After 58 years of marriage, my father recently died and left my 79-year-old mother with a whole new world of money management she was ill-prepared to face. I have been able to assist her, but there are sensitive issues that make it difficult. To be suddenly on your own after that much time being cared for emotionally and financially makes independence very different from what it is for me: divorced, a business owner, and 46.

TODDI GUTNER: *In* Hers, *she talks straight to women*

ADVICE FROM ONE READER: "Don't dumb down your column or avoid more risky investment strategies just because you are talking to women"

I'd like to see you address the issue of independent financial consultants and the claims of independence by brokers, insurance agents, and other con sioned professionals. That has bee most thorny issue with my moth her continuing reliance on my longtime broker and that tie to vestige of my dad.

For someone who never had to the difference between a stock a certificate of deposit, the further fusion of discerning between an pendent voice and that of someon miliar, working for a major brok firm, adds another layer of fuzzi I'm looking forward to your colum

Elaine B
Tu

My wife and I enjoyed your column. Dale and I are both 74. I run the family finances from the ginning. Now I am teaching D course I call Widowhood 101, ta her step by step through our fina life to prepare her for the time af die.

Leonard Nemer
Wilmett

This is an issue that needs to b dressed. Women have to start ta financial responsibility for their far and for themselves. My husband professional, and I help him in business decisions, and I have also en charge of all our financial plan and investments. This involves lea

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RECTIONS & CLARIFICATIONS

eating the football odds" (Economic ls, Feb. 14), the sentence illustrating point spreads work should have read: ou bet on a team favored by seven s, your bet will lose unless the team by more than seven."

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ock market, staying aware of the my, world situations, and tax and y issues. It upsets me that so women don't want to bother. How ney dump all this responsibility on husbands? The fact of the matter ey will most likely end up making choices anyway through death, di-, or necessity.

Judy Lang
Medford, Wis.

m 24 years old and began invest-bout a year ago. I decided to place oney in four mutual funds because: am watching my parents worry retirement, even though they both good money; 2) I am not in a re-ship currently, and I am not sure (or if) I will be married, therefore e been investing (I hate to say out of fear.

e world is a different place from it was 10 or 15 years ago; women nvesting because they have been d in a position to choose marriage in life. So women do the college , then the career, and before they it, they are 30 and wanting kids. problem is this: Because women ot getting married until later, how ney know if it is going to ever en? I invest because "what if?" I the house and the car and a kid vo, but I don't want to have to around for some guy to make it en. Investing gives me a sense of ol.

Elizabeth Quickel
Oradell, N.J.

hy does every certified financial ner, analyst, and broker assume en know nothing about investing? when it comes to riskier activities as trading (day or short-term posi-trading), they think we don't have a This bothers me, because it colors dvice I get when I talk to advisers: because I'm a woman doesn't mean stupid when it comes to trading and sting. Don't dumb down your col-or avoid more risky investment egies just because you are talking omen.

Annie Goodman
Edwards, Colo.

PRICEWATERHOUSE: NO AUDITS WERE COMPROMISED

"If you can't trust the auditors..." (Editorials, Feb. 7) dangerously misleads your readers, out of either ignorance of the facts or malice. The facts are straightforward. No audits of annual financial statements were compromised. The filings of all affected clients are being processed in the ordinary course of business. There is not one scintilla of evidence that anyone at PricewaterhouseCoopers used information improperly for personal gain or affected the outcome of an audit.

This is not meant to mitigate the seriousness of the problem. We take independence seriously and will settle for nothing less than full compliance with the independence rules. Your readers should have been informed of the sweeping actions that we have taken to prevent this from happening again.

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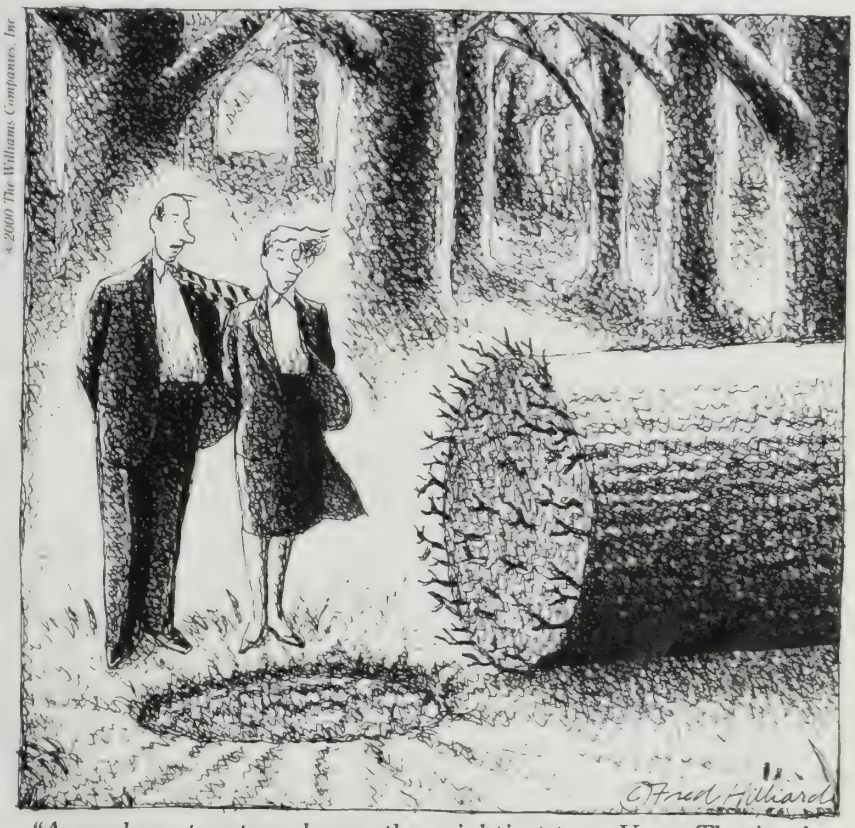

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Kenton J. Sicchitano
Global Managing Partner
Independence & Regulatory Affairs
PricewaterhouseCoopers LLP
New York

DON'T BE TOO HARSH ON THE CENDANT BOARD

While I am certain you made every effort to determine the rankings fairly of "The best and worst boards" (Special Report, Jan. 17), I would be remiss if I didn't report our point of view on Cendant. As stated, Cendant's ranking was primarily influenced by two factors; the fraud discovered at former CUC International business units and the repricing of options.

As you probably know, Cendant's board was restructured in 1998. All board members who were directors of the former CUC (prior to its announced merger with HFS) resigned from Cendant's board. Thus it is unfair to blame the current board for fraud that occurred at former CUC business units for which they had no responsibility or fiduciary duty. In the spirit of fairness, the former CUC board should have been ranked among the worst boards, not Cendant's board.

Regarding the repricing of options, the Compensation Committee was compelled to reprice options to ensure the stability and continued healthy growth of Cendant's businesses. Remember that Cendant experienced a stock meltdown, not a meltdown of its business units. The Compensation Committee acted in the best interests of all Cendant shareholders when it decided to reprice options. When you consider the tempering components of the repricing program, including the cancellation of 15 million options and repricing of 20 million options at twice fair-market value, the board's action to reprice should be viewed in a favorable light.

Elliot Bloom
Vice President
Corporate Communications
Cendant Corp.
Parsippany, N.J.

WITH UNIVERSAL HEALTH CARE, EVERYBODY COULD LIVE LONGER

Gary S. Becker applauds the advance in life expectancy that the 20th century brought ("Longer life was the century's greatest gift," Jan. 31). As he recognizes, this would not have been possible without government funding of preventive health care, childhood immunization, clean water, insurance, dissemination of health information, and research.

Much more can be done, say, to decrease infant mortality and ensure health care for all. Perhaps Professor Becker should consider lending his Nobel-enhanced prestige to support political candidates who—gasp!—are willing to ensure that all Americans have a chance to receive the greatest gift. Maybe he can give substance to the phrase "compassionate conservatism."

Eric Schliesser
Chicago

JAPAN'S INHERITANCE TAX: NOT SO LETHAL

While your attention to Japan's inheritance-tax system is appreciated, the article may convey a distorted impression ("Inheritance taxes are draining Japan's lifeblood," Asian Business, Jan. 24, in some editions). The tax is neither crazy in its burden nor remarkable in its maximum rate. The article concludes that inheritance tax is heavier in Japan than in the U.S. solely by comparing maximum rates: 70% in Japan vs. 55% in the U.S. Effective tax rates, however, depend on many other factors. Appropriate tax rates in the U.S., for example, are applied to the entire estate, while those in Japan are applied to each legal share of inheritance. Thus, the effective rates would vary even if the rate structures were the same.

An analysis of comparative burdens by the Japanese Ministry of Finance shows that the U.S. burden on taxable estates of less than $45 million surpasses that of Japan, even though Japan's maximum tax rate is higher. It also shows that the tax burden for a taxable estate of 300 million yen ($2.7 million) is the second-lowest among Group of Five countries.

In addition, more attention could have been given to the fact that the in tance-tax burden on family busin has already been relieved to a larg tent. According to recent researc entrepreneurs failed to pass their nesses on to their children becau the tax burden. Some of the membe the tax commission criticize such erous measures as discriminating vor of second-generation manager those who want to establish or ex businesses, in terms of ensuring opportunity.

As for reform, the Ministry has er been against lowering the maxi rate. The postponement of a revi not a stalling tactic. The MoF is considering what the system shoul

Kazuho Tanaka, Dir
Property Tax Policy
Ministry of Fi
T

WILL DRIVING A TOYOTA MAKE ME YOUNG AGAIN?

"Toyota: Chasing boomers' ba (The Corporation, Dec. 6) states "Toyota has set a goal of lowerin customers' age by a decade." I an Audi and have been contemplat Land Rover as my next vehicle. If ota can make me 10 years you however, I'll reconsider.

Suzanne I
East Lansing, M

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BY STEPHEN H. WILDSTROM

WINDOWS 2000: WORTH THE WAIT

Home users should be wary, but this time Microsoft got its priorities straight

After a gestation period a lot longer than an elephant's, Microsoft Corp. has finally given birth to its latest operating system, Windows 2000. Based on my experience with both test and final versions and the reports from dozens of companies that participated in an "early deployment program," the wait seems to have been worth it. For once, Microsoft held off on shipping a major piece of software until it was ready. And by concentrating on reliability and security rather than spiffy new features, Microsoft got its priorities straight.

Still, Windows 2000 is not for everyone, and home users should be especially wary of it. The unfortunate choice of name suggests that it is the successor to Windows 95 and 98. Instead, it is a replacement for the corporate-oriented Windows NT 4.0—and that makes a big difference.

PLUG AND PLAY. Microsoft's two families of PC operating systems are based on different philosophies. Windows 95 and 98 were designed for compatibility with the broadest range of hardware and software. This goal forced compromises that left the system painfully crash-prone and with a tendency to become more unstable over time. NT trades convenience and compatibility for fewer crashes and reboots. But programs and devices that don't play by its strict rules will not work. In particular, many games, especially arcade-style action titles, will not run under NT.

Windows 2000 brings a lot of the convenience of 98 to NT. Plug-and-play hardware installation now works, as do accessories that connect using the Universal Serial Bus. NT didn't work very well on laptops: It drained batteries quickly and had a lot of trouble with PC Cards. Windows 2000 was designed for mobile use, and early reports indicate that it gives slightly better battery life than 98.

In one sense, 2000 is even fussier than NT. In an effort to improve reliability, Microsoft set up procedures to certify both applications programs and drivers, the critical bits of software that run accessories such as printers. Windows 2000 can be set up to allow the use of printers and other devices to use software that has not passed compatibility tests, but it's not a good idea. Waiting for certification may render some peripherals temporarily unusable. Many applications, including Microsoft Office 2000, will require reworking to meet all the certification requirements. Fortunately, most programs, including just about all that run under NT 4.0, are "Windows 2000 Ready" and will perform just fine.

So who should use Windows 2000? Most big corporations plan to move their desktops and laptops gradually from NT 4.0 or Windows 95, since 98 is little used in big enterprises. In the past, I have recommended that smaller businesses stay away from NT because of the
culty of setting it up a
ministering it. The ge
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SERIOUS SECURIT

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new computer, whe
stalling 2000 costs onl
more than 98. You ma
convenience, but you'll
a lot less time watching
computer reboot.

Plugging In

WHAT YOU NEED

MINIMUM	133-MHz Pentium 32 MB of RAM 650 MB free hard-drive space
RECOMMENDED	400-MHz Celeron or better 128 MB of RAM 650 MB free hard-drive space

WHAT IT COSTS

$189 upgrade from Windows 95/98
$129 upgrade from Windows NT
$75 premium over Win 98 on new machine

DATA: MICROSOFT, BUSINESS WEEK

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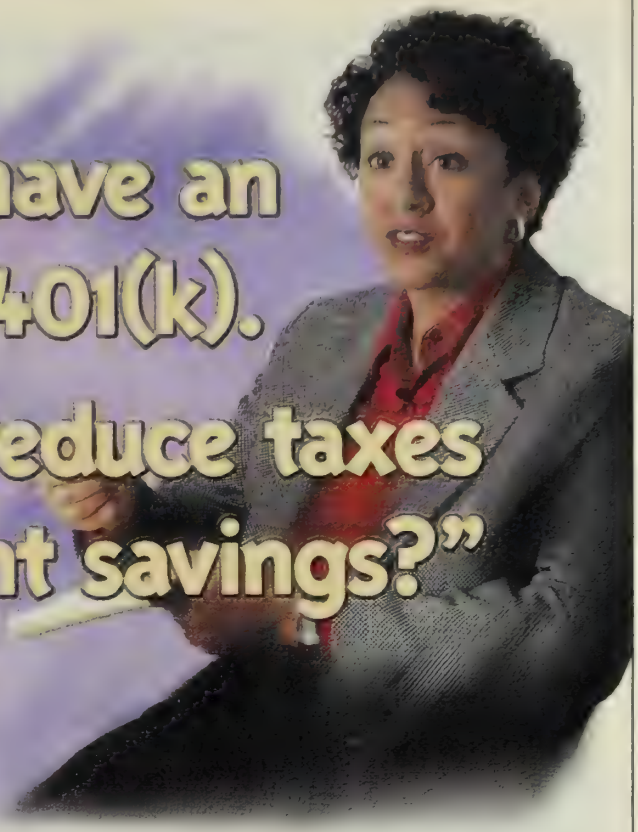

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BY ROBERT KUTTNER

PIRATES, SNOOPS, MONOPOLISTS: WHY THE NET NEEDS SOME COPS

NO NIRVANA: The dreamers see the Net as a free-market paradise. If anything, it creates new twists on old abuses–and trickier issues for regulators

The idea that the Internet yields the grail of a self-regulating economy is a delusion. If anything, it poses new twists on old anticompetitive abuses, raises old regulatory dilemmas in new, more complex forms, and requires even more competent policymaking in the common interest.

Consider these thorny dilemmas of commercial and public policy:

■**Privacy.** The California Healthcare Foundation recently found that most commercial health-care Web sites lure consumers with free medical information, then sell data on them to third parties in ways that threaten the consumer's privacy. The data can include such highly personal information as which diseases the consumer seeks to research. Internet technology generally allows Web sites and e-mail hosts to track where users go, with devices known as "cookies." Disclosure alone won't keep these privacy invasions inbounds. Sooner or later, government will have to regulate.

■**Antitrust.** A century-old principle of antitrust is that when the same company controls both content and the carriage of content, anticompetitive abuses arise. The gate keeper (such as a railroad) can overcharge users, keep out competitors, and frustrate technological advance. This led the government to insist that companies must choose between being common carriers or providers of content. You could be railroad or shipper that uses railroads, not both, and as railroad you had to treat shippers equally. You could control the TV network, but not the production companies. If you were the phone company, you had to connect all calls.

The Internet has different technologies, but similar economic principles. There is the same temptation to combine and dominate, less to achieve economies of scale than to achieve market power. Microsoft Corp. has used its dominance of operating systems (analogous to common carriage) to put competing makers of software applications at a disadvantage. With the proposed merger of America Online Inc. and Time Warner Inc., Internet-access traffic will be heavily channeled through just two companies, the merged AOL entity and AT&T. Far from being scrapped, antitrust policy needs to be brought into the Internet Age.

■**Access.** The Internet culture was born free and is intoxicated with the Internet's wondrously ubiquitous access to information. [illegible] happy state of affairs is naively attrib[illegible] to laissez-faire. But open access will su[illegible] require some form of regulation. Today, [illegible] companies and new conglomerates suc[illegible] the proposed AOL-Time Warner are saliv[illegible] over the prospect of blending common [illegible] riage with preferential access to parti[illegible] sites. Internet access is viewed as a me[illegible] nism to steer users to favored business [illegible] ners. There are a variety of models, ran[illegible] from fast lane/slow lane schemes that [illegible] the common carrier's partners to toll m[illegible] where some services are free and other[illegible] not. But common carriage and conten[illegible] noted above, don't mix.

To complicate matters, telephone co[illegible] nies, which will soon compete head-to-[illegible] with cable companies, are still regulated [illegible] federal and state authorities) as common [illegible] riers. Cable companies, by contrast, are [illegible] ulated—or not—by the cities that award t[illegible] franchises. It will not work for one set o[illegible] ternet providers to be regulated as com[illegible] carriers, while competitors are allowed t[illegible] gage in preferential cross-promotions [illegible] content providers. Once again, if open ac[illegible] is to survive, it will require regulation, [illegible] concentration masquerading as laissez-fa[illegible]

■**Taxation.** A national commission is now g[illegible] pling with the question of whether e-c[illegible] merce should be tax-free. The combina[illegible] of globalization and Internet commerce pl[illegible] more and more economic activity outside [illegible] revenue base of any national or state entit[illegible] Net commerce is untaxed, its competi[illegible] face discriminatory taxation, very likel[illegible] escalating rates to make up for the d[illegible] dling tax base. Here, too, we need consis[illegible] ground rules.

■**Piracy.** Internet piracy is a growing prob[illegible] for music, film, and software companies ([illegible] discussed in my last column, BW—Jan. [illegible] Maybe copyrighted products should be fr[illegible] available via the Net for private use, jus[illegible] movies can be videotaped from our home [illegible] Maybe not. But whatever you think of [illegible] question, purely commercial forces are no[illegible] pable of resolving the question. Absent s[illegible] clear ground rules, we face an endless leap[illegible] ging of technical advance, rip-off, and lit[illegible] tion. Whatever the outcome, it won't be [illegible] nirvana of a free, self-regulating informa[illegible] flow imagined by Net libertarians. The Inte[illegible] is no oasis of laissez-faire.

Robert Kuttner is co-editor of *The American Prospect* and author of *Everything for Sale*

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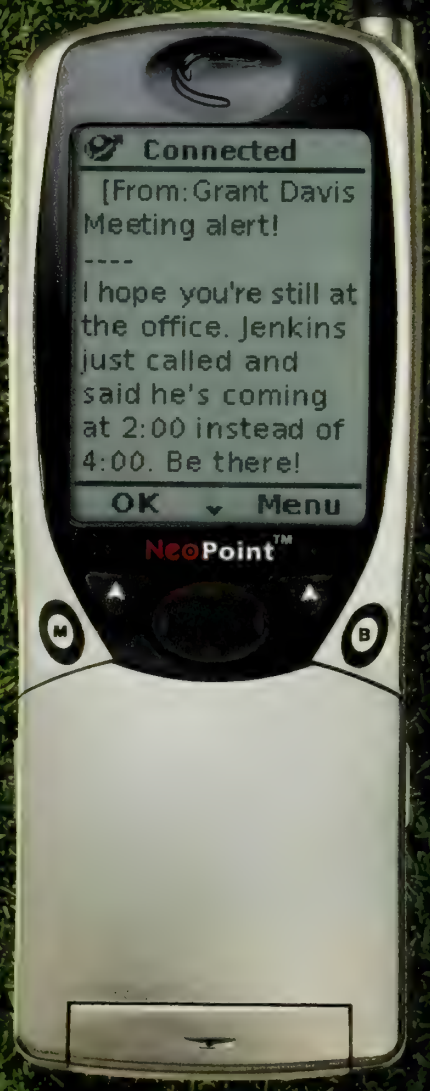

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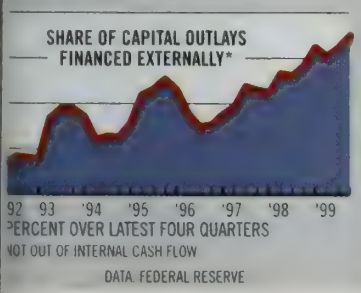
ENE KORETZ

ILL THE BOOM ED BUCKS?

ssible financing crunch looms

ıe odds-on betting these days is hat the longest expansion in U. S. ry may face some bumps down the but should continue for the fore- ɔle future. If something does upset xpansionary applecart, say the ex-, it's likely to be problems stem- from either a tight labor market, a ning current-account deficit, or an exuberant stock market.

a recent commentary, economist ert Mellman of J. P. Morgan adds ıer worry: the possibility of a sharp lown in capital spending caused by



ıcing constraints. In many respects, ɔurse, the capital-spending boom has ı the mainstay of the expansion. e the early 1990s, such investment averaged nearly triple the growth of the overall economy, and it ed strong even when consumer ıding, housing, and exports slowed oorarily. At the same time, it has fu- a pickup in capacity growth that al- ɜ output to satisfy demand without eased inflation.

he conventional view is that the im- ıtives of a high-tech economy will ɔ capital outlays rising as the econ- slows. But Mellman points out that ernment data indicate that overall ıestic profits growth has been slow- and profit margins have been de- ıng since mid-1997. (This trend has n obscured by the more buoyant ıings growth chalked up by the ıdard & Poors 500-stock index, which ɜss comprehensive than the govern- ıt measure and includes such "ex- ıeous" items as inventory and foreign profits and capital gains on stock investments.) The upshot is that companies are taking on a record amount of debt as their ability wanes to pay for capital spending out of cash flow (chart).

What's more, says Mellman, a triple squeeze on profitability lies ahead. First, the combination of very low unemployment and recent hefty capacity growth, plus a strong dollar, are a recipe for rising labor costs in the face of limited pricing power. Second, with both interest rates and corporate borrowing moving higher, interest expense should start eating into profit margins. Finally, growing depreciation expense—the cost of replacing short-lived high-tech capital goods—should also hurt margins.

None of these trends are yet strong enough to end the capital-spending boom, but they have made it a lot more vulnerable to the economic slowdown Mellman sees ahead. As borrowing and debt rise relative to cash flow, deteriorating credit quality may lead corporate treasurers to dampen spending growth and lenders to curb their lending. If expected rates of return on future investment also decline, so will the basic urge to splurge.

Of course, rising productivity could offset labor and other cost pressures, as it did during 1999's superheated final quarter. But Mellman regards that quarter as the exception that proves the rule. He notes that the impressive growth and productivity surge of recent years failed to stem the erosion in companies' domestic earnings.

Thus, at best, Mellman thinks capital-spending growth is likely to slow sharply. "It's one more factor," he says, "complicating the Fed's task of engineering a soft landing."

THE TEMP SURGE ISN'T TEMPORARY

Most industries are tapping the pool

Since the early 1980s, the U. S. temporary help industry has been on a roll, tripling the number of workers on its payrolls in the last 10 years alone. Although the industry employed 2% of the nation's workers in 1997, it accounted for fully 10% of employment growth between 1991 and 1997.

Some observers have theorized that this increase reflected the changing employment patterns of a few industries. But a recent study based on government data by Marcello Estevao of the Federal Reserve and Saul Lach of Hebrew University in Jerusalem finds that the use of temps supplied by outside agencies has risen in most major industries—with the exception of the public sector. Their analysis indicates that governments and public enterprises employed 40% of all such temps in 1982 but a negligible number by 1997.

By contrast, the percent of the temporary help industry's workforce used by manufacturing companies tripled between 1987 and 1997, to 30%. And the demand for temps by the service sector also rose substantially, to about 45% of the total. In addition, a lot more blue-collar workers and male workers entered temporary help industry ranks.

The implications of this shift for the manufacturing industry are particularly interesting. According to the researchers, it helps explain the apparent flatness of factory employment in the 1990s. And it suggests that the average annual increase in manufacturing productivity would be about half a percentage point smaller than reported—if the hours put in by workers on temp-industry payrolls were factored in.

CITIES THAT'LL PICK YOU CLEAN

London edges out New York

Back in 1995, reports Runzheimer International, a business consultancy, Tokyo and Hong Kong were the two priciest cities for a U. S. business traveler to visit, with daily costs of $461 and $433, respectively, for a hotel room and three meals in business-class restaurants. But since then, their dollar costs have fallen by 20%, while double-digit increases have pushed London and New York to the head of the parade, with daily tabs of $445 and $403 (chart).

As of late 1999, other costly international venues for business travelers included Moscow (per diem costs of $391), Paris ($359), Buenos Aires ($359), and Frankfurt ($316). As in the past, the best deals were found in Canadian destinations such as Toronto, where three squares and a hotel room still cost a mere $196.

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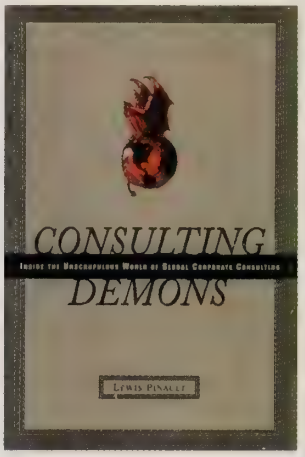
CONSULTING DEMONS
Inside the Unscrupulous World of Global Corporate Consulting
By Lewis Pinault
HarperBusiness • 284pp • $26

FIRST, LET'S KILL ALL THE CONSULTANTS

Lewis Pinault is an exceptionally bright and ambitious professional. Educated at Massachusetts Institute of Technology, he once won a Fulbright Scholarship to study at the London School of Economics. Pinault's intelligence and charm also allowed him to spend a dozen years as a management consultant at the industry's most prominent companies, including Boston Consulting Group (BCG). With this book's publication, he can now add a new title to his resume: tattletale.

Consulting Demons is his confessional, a meandering journal of his harried and dissatisfied life as a consultant. The adventures he describes are not flattering either to him or to the business. Pinault comes off as a self-centered brat and an aimless drifter, unable to commit to anything more than an ephemeral personal or professional relationship. The consulting industry, meantime, is portrayed as little more than a sham where "lying, cheating, and stealing" are business as usual.



Pinault's book, however, often offers a rare and fascinating glimpse into the world of high-level consulting. The author worked at such esteemed consulting shops as BCG, Gemini Consulting, Arthur D. Little, and Coopers & Lybrand. He also toiled alongside such prominent consultants as James Abegglen, one of the foremost observers of Japanese management, and C.K. Prahalad, the University of Michigan strategist who coined the still popular phrase "core competencies." Pinault was also involved in the work of many venerated clients, from AT&T to Philips Electronics, in the U.S., Europe, and Asia.

In every chapter, moreover, the author offers useful advice on numerous aspects of the consulting game, from tips on how to gain employment with a top firm to recommendations on how clients can use consultants more effectively. There's a concise rundown o key players of the business and roots. Another section describes ploys used by some consultants to up higher fees.

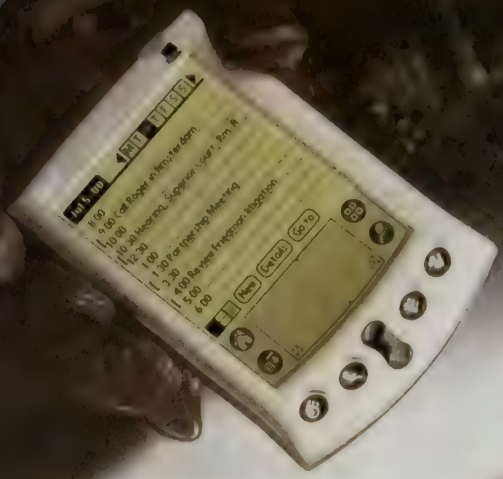
But more to the author's point one who reads this book will ever a consultant again. Pinault tells ho misrepresented himself to gather prietary information on disposable-d technology from Procter & Gamble and Kimberly-Clark Corp. for a J nese company. He tells how he bec the fall guy after BCG ated a pricing model Royal Dutch/Shell G that the client perce as virtually useless. In mid-1990s, he char Gemini was desperat convince Chase Manha Corp. of both the att tiveness of the South Asian markets and depth of Gemini's ex ence there. "That were nonexistent mere inconveniences me to address," he wr

He was also part o early '90s Gemini team assigne Philips Electronics. At the time, Dutch company was fearful that J nese competition would wipe out own consumer-electronics business, as the Japanese had cleaned up on and Zenith in America. The consulta fee for the first year of what was t a five-year project: $20 million. Yet, Pinault, even if Gemini had assigne its most senior officers to the proje the highest possible billing rates, could not have justified fees of half amount. Never mind that Pinault that Philips could exhaust his kn edge of the industry within a week

The author reports that, with halad, he began to facilitate a corpo transformation that would make Ph more nimble, efficient, and innovat Although he left after two years, says the project did ultimately Philips initiate multicountry produc of TV sets, with picture tubes mad

om

re connected.



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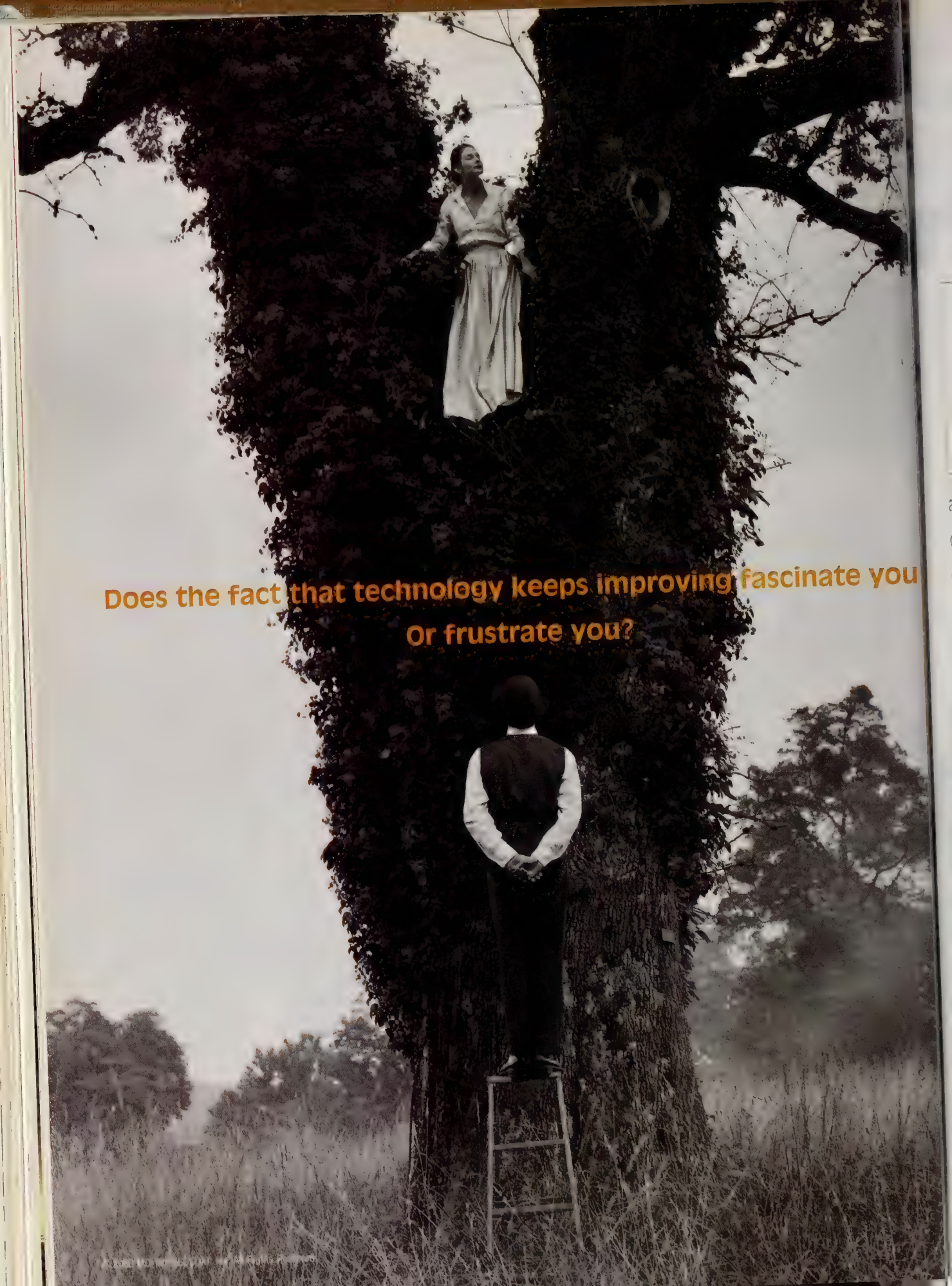
Does the fact that technology keeps improving fascinate you
Or frustrate you?

Read on to see how MCI WorldCom used Voice over Frame technology to help an insurance company save money.

It seems every three months there's a new "killer app." The media heralds it. Startups sell it. And you lie awake at night wondering if you should or shouldn't buy it.

Case in point. A well-known insurance company was hearing a lot of good things about Voice over IP technology. About how it could help their branch offices communicate with their home office for a fraction of the cost. When MCI WorldCom℠ went in and assessed the situation, however, we noticed an interesting thing. They used IP for e-mail. But kept the lion's share of their mission critical data on Frame Relay. An important distinction. Because that meant they could use the spare bandwidth on their Frame Relay to carry voice. Máximizing their previous investment. Minimizing their new one.

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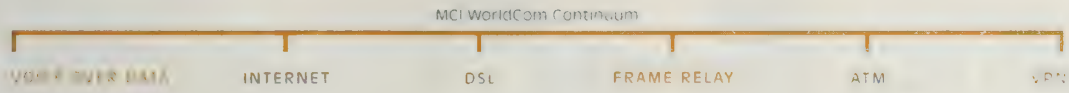

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#10 LESSON

How Chart Patterns Lead to Big Profits

Learning to recognize winning chart patterns when researching a stock will enable your performance to improve significantly. It's just one of the unique but proven lessons found in William J. O'Neil's latest book, *24 Essential Lessons for Investment Success.*

In this one accessible guide, the founder of *Investor's Business Daily* puts his popular and easy-to-follow techniques for building a profitable portfolio firmly in your hands—and the goal of long-term financial security easily within your reach.

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China, other components made in Ja and Singapore, assembly in Taiwan, sales in Hong Kong.

But the negative evaluations number the positive, and *Consul Demons* is filled with condemnatio consultants and their work. He ram on about the "programmed deception clients. He dubs business transfor tion "mass brainwashing." Not surp ingly, he says, he began to "ques the hollow values and destruc schemes" of the business. Pinault qu 1997, shortly after becoming a part at Coopers & Lybrand in Hong Ko

Consulting Demons has a good m flaws. Most of the book is writter narrative in which the author recre

> "Lying, cheating, an stealing" are standar practice in the consulting business

impossibly long conversations with leagues whose names have b changed to protect their privacy. Of he is more fixated on the elabor meals and drinks consumed in fa restaurants than on the intricacies consulting or its solutions to busir problems. Witness this tedious passa one of many: "Richard began to mi his meegoreng, a dish of spiced C nese-Malay noodles and vegetables t was once standard fare for thousa of tin mine workers. I started in on Szechuan chicken, made with dozens enormous toasted red chilis." It g on, but you get the idea.

All the same, set aside any negat feelings you may have toward the thor, and you'll find *Consulting Dem* provocative and useful. For this wri there was a further satisfaction: T book confirms my own explanation the past decade's dramatic boom in hi powered consulting. The advice ga has really become a temporary-empl ment affair. Today's consultants of less in the way of counsel and far m in the way of short-term help. Th give companies an efficient way to quire expertise without adding to th fixed payrolls. They have become, i sense, sophisticated Kelly Girls. It wa role the author obviously did not enj

BY JOHN A. BYR
Senior Writer By covers manageme

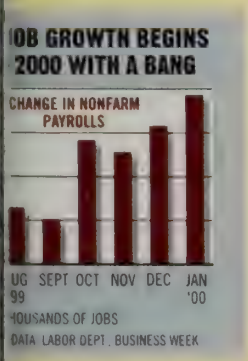
AMES C. COOPER & KATHLEEN MADIGAN

OW FAST IS TOO FAST?)OK TO THE LABOR MARKETS

'alling jobless rate increases the risk of an overheating economy

U.S. ECONOMY Physicists cannot see particles like quarks and neutrinos n they smash an atom, but they can prove their ex- ıce by observing their residual effects. So it is ı the economy's maximum sustainable growth rate. nomists cannot always pin it down to a specific ber—especially now, when the productivity speedup es the pace a moving target. But they can point to ence that economic growth is either above or below magic number. Right now, the best clue that the ıomy is exceeding this limit is the continued tight- g of the labor market.

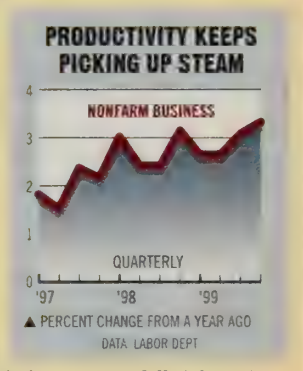
he economy's speed limit depends on how many ɔle join the labor force and the growth in pro- ivity. If output is growing at its potential, and pro- ivity growth is stable, businesses absorb all new seekers and the unemployment rate holds steady. that's not the case right now. Even with produc- y accelerating, spending by consumers and busi- ses is so robust that companies must hire workers greater rate than the number of new job seekers. s has drained the pool of available workers, send- the jobless rate ever lower.



In January, jobs grew by a larger-than-expected 387,000 (chart). Although payrolls were lifted a bit by mild weather during the survey week, the gain was the largest in more than two years. As a result, the jobless rate dipped to 4% in January, the lowest level in 30 years. And the Federal Reserve's new favorite labor indicator, the ıber of unemployed adults available to work, fell in, to 9.9 million, from 10.2 million in December.

E DANGEROUS CONSEQUENCE of tight job mar- s is the upward tug they exert on labor costs. ed with labor shortages, companies must raise com- sation to attract new workers and to retain existing s. Businesses may try to pass along the higher s by raising prices, or else they risk missing profit gets. Neither choice is welcome at a time when ıetary policy is leaning toward higher interest rates when economic growth depends increasingly on stock market.

What makes the January hiring binge especially noteworthy is that businesses are still in dire need of labor despite the great strides being made in productivity. Output per hour worked in the nonfarm sector surged at a 5% annual rate in the fourth quarter, after an equally spectacular showing in the third quarter. For all of 1999, productivity was up 2.9%.



But those gains may not be enough to thwart at least some modest upward pressure on wages and prices this year. As the Federal Reserve's policy committee put it following its Feb. 2 rate hike: "The committee remains concerned that over time increases in demand will continue to exceed the growth in potential supply, even after taking account of the pronounced rise in productivity growth" (chart).

Indeed, economic growth is generating a demand for labor that is sure to send the unemployment rate down to the 3.5%-to-4% range in coming months. At that level, almost no economist will dismiss the likelihood of accelerating wages and other compensation.

ON THAT SCORE, though, the latest productivity report showed no imminent threat. Unit labor costs actually declined in both the third and fourth quarters. But keep in mind that the report's measure of compensation, which is the government's most encompassing measure of wages, salaries, and benefits, grew 4.8% for the year, an already rapid pace that is most likely to speed up in 2000. That means productivity growth would have to pick up even more to prevent a pickup in unit labor costs.

What's more likely is that with the Fed trying to slow the economy, productivity growth will slip a notch, since at least some of the recent gains have been purely cyclical. In other words, the gains are related to the rapid growth in output as opposed to any permanent pickup spurred by technology.

Note also that in 1998 and 1999, increases in unit labor costs exceeded the growth in prices. That trend covers the 75% of the economy tracked by the productivity and costs data, and it illustrates why many corporate profit margins shrank in those two years. However, prices last quarter grew at the fastest pace in

nearly three years. Some of that pickup reflects costlier energy, but some of it may well be an attempt to restore margins by testing the waters on pricing power.

Of course, pricing power has been generally nil in recent years, but that may change if demand remains as strong as it did in the second half of 1999—when growth galloped at a 5.7% annual pace. And the healthy state of the labor markets gives households little incentive to cut back. True, mild weather did help to boost payrolls in January. But the acceleration in jobs was not a one-time event. Over the past three months, job growth has averaged 320,000 per month, the fastest three-month advance in two years.

In the goods-producing sector, construction payrolls jumped 116,000 in January, compared with a monthly average of just 18,000 in 1999. With weather shifting to more wintry temperatures across most of the U. S., look for jobs in the building trades to be flat in February, if not to decline.

WEATHER DOES NOT EXPLAIN AWAY the good news in the manufacturing sector, though. Factories added 13,000 workers last month, the second increase in three months. Manufacturers also lengthened the workweek by six minutes, to 41.7 hours, although overtime dipped. The increases in hours and jobs suggest a strong advance in industrial output last month. Output gains are being fueled by the increases in demand. Factory orders jumped 3.3% in December, and the backlog unfilled orders is soaring.

Despite manufacturing's signs of better growth, vice companies were once again the big job produc More than 250,000 service jobs were created, w large increases in business services and health car

So far, though, the pickup in job growth has not translated to large wage gains for production workers. Their hourly pay rose 0.4%, to $13.50. Compared to a year ago, pay is growing 3.5%, which means it is rising faster than inflation.

Strong labor markets explain why households feel free to spend and borrow. Installment credit in December jumped $11.2 billion on to a $15.8 billion surge in November. Back-to-back gain credit have not been that huge since 1995.

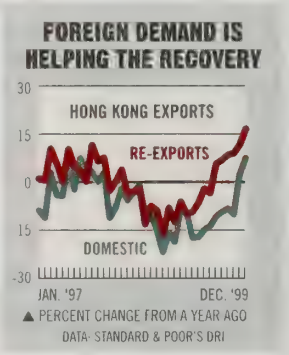
Excessive borrowing is just another tool for c sumers to keep spending, which leads to stronger growth, which fuels even more spending. Where wi all end? Historically, spending slows first and b nesses cut back payrolls in response. So expect tight bor markets to increase the pressure on labor costs til policymakers find a way to rein in consumers.

HONG KONG

ON THE ROAD TO WELLNESS

Hong Kong's recovery from its worst recession ever is now well established, given the decided upturn in growth in the second half of 1999. Its economy plunged 5.1% in 1998, in the wake of sharply higher interest rates meant to hold the city's currency peg with the U. S. dollar.

After an advance of about 2% in 1999, Hong Kong's economy is expected to expand in the 4% to 5% range in 2000. However, rising interest rates in the U. S., which could force Hong Kong rates higher, add some risk to that forecast. So far, Hong Kong rates have not risen as much as U. S. rates, reflecting rising confidence in the recovery and strong capital flows.



The economic data have looked better than expected in recent months. Exports are accelerating, especially services. December shipments posted the fastest annual growth in almost four years, reflecting stronger regional demand. That growth includes Hong Kong's own exports, as well as huge re-exports of goods coming from mainland China, which boosts the city's shipping and trading operations (chart). Imports have also picked up, suggesting firmer domestic demand.

The volume of retail sales is rising, although store receipts continue to decline because of deflation. Housing prices began recovering last year, but they are still below their early-1998 levels December consumer prices fell 4 from a year ago, but the rate of deflation is ebbing, and many ana lysts expect prices to stabilize by yearend. That will help Hong Kong adjust to higher U. S. rates since real rates—inflation-adjuste borrowing costs—will be falling.

Profits will begin to benefit from steep cuts in labor costs. That expectation is already reflected in the Hang Seng stock in dex, which surpassed its pre-Asian-crisis peak late last year. Unemployment has topped out, but it remains high, at 6% in December, not far from last year's 6.3% record and a long way from the 2.5% level in December, 1997. Economic growth will help, and government programs are set to create new jobs, but the rate is expected to decline only slowly.

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KRYLON

CYBER CRIME

Cover Story

First Yahoo! Then eBay. The Net's vulnerability threatens e-commerce–and you

The scenario that no one in the computer security field likes to talk about has come to pass: The biggest e-commerce sites on the Net have been falling like dominoes. First it was Yahoo! Inc. On Feb. 6, the portal giant was shut down for three hours. Then retailer Buy.com Inc. was hit the next day, hours after going public. By that evening, eBay, Amazon.com, and CNN had gone dark. And in the morning, the mayhem continued with online broker E*Trade and others having traffic to their sites virtually choked off.

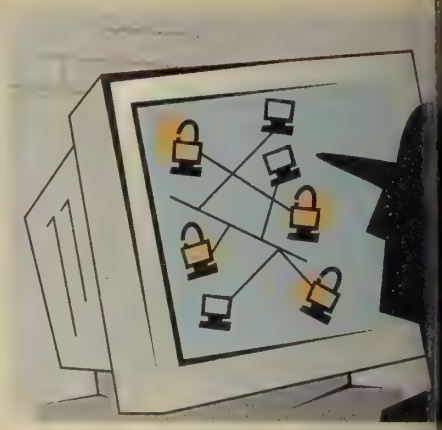
The work of some super hacker? For now, law enforcement officials don't know, or won't say. But what worries experts more than the identity of this particular culprit or outlaw group is how easily these attacks have been orchestrated and executed. Seemingly, someone could be sitting in the warmth of their home and, with a few keystrokes, disrupting electronic commerce around the globe.

DEAD HALT. Experts say it's so easy, it's creepy: The software to do this damage is simple to use and readily available at underground hacker sites throughout the Internet. A tiny program can be downloaded and then planted in computers all over the world. Then, with the push of a button, those PCs are alerted to go into action, sending a simple request for access to a site, again and again and again—indeed, scores or hundreds of times a second. Gridlock. For all the sophisticated work on firewalls, intrusion-detection systems, encryption and computer security, e-businesses are at risk from a relatively simple technique that's akin to dialing a telephone number repeatedly so that everyone else trying to get through will hear a busy signal. "We have not seen anything of this magnitude before—not

HOW THIS HAPPENED TO YAHOO!, EBAY, AND E*TRADE

Disrupting the Net isn't child's play, but it isn't rocket science, either. And cleaning up the mess takes teamwork.

STEP 1 An individual or group downloads software that is readily available at scores of underground Web sites specializing in hacker tools. The software is easy to use; it's all point-and-click.



STEP 2 They break into scores of com on the Web and plant a portion of the loaded program, allowing the hacker t trol the machine. Unfortunately, there plenty of machines on the Net that lac proper security to stop this.

Cover Story

only at eBay, but across so many sites," says Margaret C. Whitman, CEO of eBay.

No information on a Web site was snatched, no data corrupted, no credit-card numbers stolen—at least so far. Yet it's a deceptively diabolical trick that has temporarily halted commerce on some of the biggest Web sites, raising the question: How soft is the underbelly of the Internet? Could tricks like these jeopardize the explosive growth of the Web, where consumers and businesses are expected to transact nearly $450 billion in business this year? "It's been war out there for some time, but it's been hidden," says James Adams, co-founder of iDEFENSE, an Alexandria, Va., company that specializes in cyber threats. "Now, for the first time, there is a general awareness of our vulnerabilities and the nature of what we have wrought by running helter-skelter down the speed race of the Information Highway."

To be sure, not even the most hardened cyber sleuths are suggesting the Net is going to wither overnight from the misdeeds of these wrongdoers. But the events of recent days are delivering a shrill wake-up call to businesses that they need to spend as much time protecting their Web sites and networks as they do linking them with customers, suppliers, contractors—and you. Consider just a quick smattering of recent events: In December, 300,000 credit-card numbers were snatched from online music retailer CD Universe. In March, the Melissa virus caused an estimated $80 million in damage when it swept around the world, paralyzing e-mail systems. That same month, hackers-for-hire pleaded guilty to breaking into phone giants AT&T, GTE, and Sprint, among others, for calling card numbers that eventually made their way to organized crime gangs in Italy. According to the FBI, the phone companies were hit for an estimated $2 million.

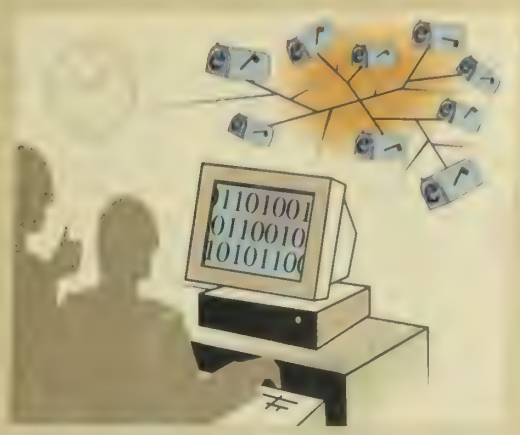
Cyber crime is becoming one of the Net's growth business-

> "We have not seen anything of this magnitude before–not only at eBay but across so many sites. This is probably the single largest denial of service that the Internet has seen"
>
> **MARGARET C. WHITMAN**
> *CEO, eBay Inc.*

es. The recent spate of tacks that gummed Web sites for hours known as "denial of s vice"—is only one ty Today, criminals are ing everything from ste ing intellectual proper and committing fraud unleashing viruses a committing acts of cyb terrorism in which poli cal groups or unfrienc governments nab cruc information. Indeed, t tactic used to create ma hem in the past few da is actually one of t more innocuous ones. C ber thieves have at th fingertips a dozen dang ous tools, from "scar that ferret out weakne es in Web site softwa programs to "sniffer that snatch passwords. told, the FBI estimat computer losses at up $10 billion a year.

As grim as the secur picture may appear tod it could actually get wor as broadband connectio catch on. Then the W will go from being the c casional dial-up service to being "always on," much as t phone is. That concept may be nirvana to e-tailers, but cou pose a real danger to consumers if cyber crooks can cor and go into their computer systems at will. Says Bru

: They pick a target—Yahoo!, eBay, or .com—and then sit back in the of their homes and instruct the ers they've hijacked to send requests mation to that site. One or two es won't do it. But send enough of the same time and the resulting ion clogs networks or brings er servers and router systems to their t's like constantly dialing a telephone so that no one else can get through.



STEP 4 Responding can take hours. Tracing attackers is hard because they use fake addresses from scores of computers. But as systems administrators sift through the traffic, they can identify the general location—say, an Internet service provider. This takes a coordinated effort involving the company, its ISP, and telecom suppliers. After identifying the machines, the company writes a program to reject the requests—and prays that it doesn't get another flood of messages.

neier, chief technical officer at Counterpane Internet Secu- Inc. in San Jose, Calif.: "They'll keep knocking on doors un- hey find computers that aren't protected."

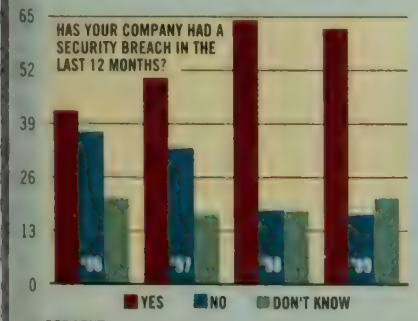
Sadly, the biggest threat is from within. Law enforcement of- ils estimate that up to 60% of break-ins are from employ- . Take the experience of William C. Boni, a digital detective PricewaterhouseCoopers in Los Angeles. Last year, he called in by an entertainment company that was suspicious ut an employee. The employee, it turns out, was under e financial pressure and had installed a program called k Orifice on three of the company's servers. The program, ich is widely available on the Internet, allowed him to take r those machines, gaining passwords and all the company's ncial data. The employee was terminated before any damage ld be done.

The dirty little secret is that computer networks offer ready nts of access for disgruntled employees, spies, thieves, so- aths, and bored teens. Once they're in a corporate network, y can lift intellectual property, destroy data, sabotage operations, even subvert a particular deal or career. "Any business on the Internet is a target as far as I'm concerned," says Paul Field, a reformed hacker who is now a security consultant.

It's point and click, then stick 'em up. Interested in a little mayhem? Security experts estimate that there are 1,900 Web sites that offer the digital tools—for free—that will let people snoop, crash computers, hijack control of a machine, or retrieve a copy of every keystroke. Steve O'Brien, vice-president for information operation assessments at Info-Ops.com, an Annapolis (Md.)-based company that provides intrusion detection services and security solutions, says the number of ways to hack into computers is rising fast. He tracks potential threats both from hacker groups and from the proliferation of programs. Once a rare find, he now discovers at least three new nasty software programs or vulnerabilities every day. And those tools aren't just for the intellectually curious. "Anyone can get them off the Internet—just point and click away," says Robert N. Weaver, a Secret Service agent in charge of the New York Area Electronic Crimes Task Force.

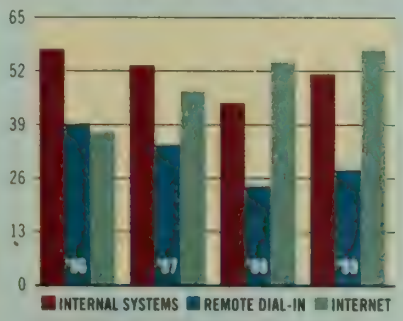
UNLOCKED DOORS. It's an issue that has crimefighters up in arms. At a hastily called press conference in Washington, D.C., on Feb. 9, Attorney General Janet Reno pledged to battle cyber crime. "We are committed to tracking down those responsible and bringing them to justice" and ensuring "that the Internet remains a secure place to do business," she said. But Ron Dick, chief of the Computer Investigations & Operations Section of the National Infrastructure Protection Center, pointed out that Internet security can't be assured by the government alone. Companies need to vigilantly monitor their computers to ensure that hackers don't surreptitiously install programs from which to launch attacks. "For the Internet to be a safe place, it is incumbent on everyone to remove

COMPUTER SECURITY BREACHES ARE ON THE RISE...



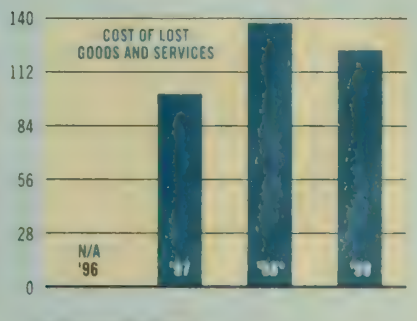
▲ PERCENT

...AND THE MOST POPULAR ROUTE IN IS THE NET...



▲ PERCENT BASED ON RESPONDENTS REPORTING MULTIPLE POINTS OF ATTACK

...ADDING UP TO BIGGER LOSSES



▲ MILLIONS OF DOLLARS

* SPIKED BECAUSE OF ONE UNIDENTIFIED $50 MILLION INCIDENT

SURVEY BASED ON APPROXIMATELY 500 RESPONSES FROM PRIVATE CORPORATIONS AND LARGE GOVERNMENT AGENCIES

DATA: FBI/COMPUTER SECURITY INSTITUTE

these tools," he says. Using them, "a 15-year-old could launch an attack."

Make that an 8-year-old, once the Internet is always on via fat broadband connections. There are currently 1.35 million homes in America with fast cable modems, according to market researcher International Data Corp. By 2003, the number will grow to 9 million, and there will be an equal or larger number of digital subscriber line (DSL) connections.

Cover Story

That gives hackers a broad base from which to stage an attack. When a PC is connected to a conventional phone modem, it receives a new Internet address each time the user dials onto the Net. That presents a kind of barrier to hackers hoping to break in and hijack the PC for the kind of assault that crippled eBay, Yahoo, and others. In contrast, cable and DSL modems are a welcome mat to hackers. Because these modems are always connected to the Net, they ally have fixed addresses, which can be read from e-mail sages and newsgroup postings. Home security systems kn as personal firewalls are widely available for cable and DSL scribers. But until they reach nearly 100% penetration, t won't prevent intrusions.

In the coming age of information appliances, the situat could get worse. According to many analysts, the U.S. soon be awash in Web-browsing televisions, networked ga consoles, and smart refrigerators and Web phones that do load software from the Net. "These devices all have powe processors, which could be used in an attack, and they're connected to the Net," Schneier says.

True, broadband customers can switch off their Net c nections. But as cool applications come onstream, nobody want to do that. "There will be streaming music and video, hour news, and all kinds of broadband Web collaborati

STORMING THE FORTRESS

THE WEAPONS

DENIAL OF SERVICE This is becoming a common networking prank. By hammering a Web site's equipment with too many requests for information, an attacker can effectively clog the system, slowing performance or even crashing the site. This method of overloading computers is sometimes used to cover up an attack.

SCANS Widespread probes of the Internet to determine types of computers, services, and connections. That way the bad guys can take advantage of weaknesses in a particular make of computer or software program.

SNIFFER Programs that covertly search individual packets of data as they pass through the Internet, capturing passwords or the entire contents.

SPOOFING Faking an e-mail address or Web page to trick users into passing along critical information like passwords or credit-card numbers.

TROJAN HORSE A program that, unknown to the user, contains instructions that exploit a known vulnerability in some software.

BACK DOORS In case the original entry point has been detected, having a few hidden ways back makes reentry easy—and difficult to detect.

MALICIOUS APPLETS Tiny programs, sometimes written in the popular Java computer language, that misuse your computer's resources, modify files on the hard disk, send fake e-mail, or steal passwords.

WAR DIALING Programs that automatically dial thousands of telephone numbers in search of a way in through a modem connection.

LOGIC BOMBS An instruction in a computer program that triggers a n licious act.

BUFFER OVERFLOW A technique crashing or gaining control of a co puter by sending too much data to the buffer in a computer's memory.

PASSWORD CRACKERS Software that can guess passwords.

SOCIAL ENGINEERING A tactic us to gain access to computer systems by talking unsuspecting company e ployees out of valuable information such as passwords.

DUMPSTER DIVING Sifting throug a company's garbage to find inform tion to help break into their compu ers. Sometimes the information is used to make a stab at social engineering more credible.

THE PLAYERS

WHITE-HAT HACKERS They're the good guys who get turned on by the intellectual challenge of tearing apart computer systems to improve computer security.

BLACK-HAT HACKERS Joyriders on the Net. They get a kick out of crashing systems, stealing passwords, and generally wreaking as much havoc as possible.

CRACKERS Hackers for hire who break into computer systems to steal valuable information for their own financial gain.

SCRIPT BUNNIES Wannabe hackers with little technical savvy who download programs—scripts—that automate the job of breaking into computers.

INSIDERS Employees, disgruntled or otherwise, working solo or in concert with outsiders to compromise corporate systems.

John Corcoran, an Internet analyst with CIBC World Mar-
. "To take advantage of that, the door will be open 24 hours
ay."

orporations are no better off. There, security is becoming
xpensive necessity. "At least 80% of a corporation's intel-
ual property is in digital form," says Boni. Last year, Cor-
ate America spent $4.4 billion on sales of Internet security
ware, including firewalls, intrusion-detection programs, dig-
certificates, and authentication and authorization software,
rding to International Data. By 2003,
e expenditures could hit $8.3 billion.
nd still computer crime keeps spreading. When the FBI and the Computer Security Institute did their third annual survey of 520 companies and institutions, more than 60% reported unauthorized use of computer systems over the past 12 months, up from 50% in 1997. And 57% of all break-ins involved the Internet, up from 45% two years ago.

As big as those numbers sound, no one really knows how pervasive cyber crime is. Almost all attacks go undetected—as many as 60%, according to security experts. What's more, of the attacks that are exposed, maybe 15% are reported to law enforcement agencies. Companies don't want the press. When Russian organized crime used hackers to break into Citibank to steal $10 million—all but $400,000 was recovered—competitors used the news in marketing campaigns against the bank.

That makes the job even tougher for law enforcement. Most companies that have been electronically attacked won't

talk to the press. A big concern is loss of public trust and image—not to mention the fear of encouraging copycat hackers. Following the attacks on Feb. 8 and Feb. 9, there was a telling public silence from normally garrulous Internet executives from E*Trade to priceline.com. Those that had not been attacked yet were reluctant to speak for fear of painting a target on their site, while others wanted no more attention.

And even when the data are recovered, companies are sometimes reluctant to claim their property. Secret Service agent Bob Weaver waves a CD-ROM confiscated in a recent investigation. The disk contains intellectual property—software belonging to a large Japanese company. Weaver says he called the company, but got no response.

CAREFUL, IT'S HOT Secret Service agent Weaver wi recovered loot: Companies are often slow to report crimes an reluctant to reclaim goods

Cover Story

Thieves and hackers don't even need a computer. In many cases, the physical world is where the bad guys get the information they need for digital break-ins. Dallas FBI agent Mike Morris estimates that in at least a third of the cases he's investigated in his five years tracking computer crime, an individual has been talked out of a critical computer password. In hackerland, that's called "social engineering." Or, the attackers simply go through the garbage—dumpster diving—for important pieces of information that can help crack the computers or convince someone at the company to giving them more access.

"PAGEJACKING." One problem for law enforcement is that hackers seem to be everywhere. In some cases, they're even working for so-called computer security firms. One official recalls sitting in on the selection process for the firm that would do the Web site security software for the White House. As the company's employees set up to make their pitch, one person walked into the room and abruptly walked out. It turns out one of the people in the audience was with law enforcement, and had busted that person for hacking.

It's not just on U.S. shores that law enforcement has to battle cyber criminals. Attacks from overseas, particularly eastern European countries, are on the rise. Indeed, the problem was so bad for America Online Inc. that it cut its connection to Russia in 1996. Nabbing bad guys overseas is a particularly thorny issue. Take Aye.Net, a small Jeffersonville (Ind.)-based Internet service provider. In 1998 intruders broke into the ISP and knocked them off the Net for four days. Steve Hardin, director of systems engineering for the ISP, discovered the hackers and found messages in Russian. He reported it to the FBI, but no one has been able to track down the hackers.

As if worrying about hackers weren't enough, online fraud is also on the rise. The Federal Trade Commission, which responds to consumer complaints about bogus get-rich schemes or auction goods never delivered, says it filed 61 suits last year. How many did it have back in 1994, when the Net was in its infancy? One. So far, the actions have resulted in the collection of more than $20 million in payments to consumers and the end of schemes with ann estimated sales of o $250 million.

The FTC doesn't w to stop there. On Feb commissioners testi before a Senate pa seeking an increase in commission's budget part, to fund new In net-related policies fight cyberfraud. money is needed to go ter ever more creat schemes. In September, for example, the FTC filed a c against individuals in Portugal and Australia who engaged "pagejacking" and "mousetrapping" when they captured un thorized copies of U.S.-based Web sites (including those PaineWebber Inc. and *The Harvard Law Review*) and p duced lookalike versions that were indexed by major search gines. The defendants diverted unsuspecting consumers to a quence of porno sites that they couldn't exit. The FTC obtai a court order stopping the scheme and suspending the def dants' Web-site registrations.

All of this is not to suggest it's hopeless. Experts say first step for companies is to secure their systems by search for hacker programs that might be used in such attacks. T also suggest formal security policies that can be distributed employees letting them know how often to change passwords what to do in case of an attack. An added help: Constantly dating software with the latest versions and security patch Down the road, techniques that can filter and trace malici software sent over the Web may make it harder to kn businesses off the Net. Says Novell Inc. CEO Eric Schmidt: " curity is a race between the lock makers and the lock picke Regulators say that cybercrime thrives because people acc the Internet far more credibility than it deserves. "You can a lot of good information from the Internet—95% of what do there is bona fide," says G. Philip Rutledge, deputy c counsel of the Pennsylvania Securities Commission. "Unfor nately, that creates openings for fraud."

And other forms of mayhem. That's evident from the atta that took down some of the biggest companies on the Net. blackouts and other types of cyber crime are to be avoid then Net security must be the next growth business.

By Ira Sager in New York, with Steve Hamm and N Gross in New York, John Carey in Washington, D.C., a Robert D. Hof in San Mateo, Calif.

BusinessWeek ONLINE

See how secure your computer network is.
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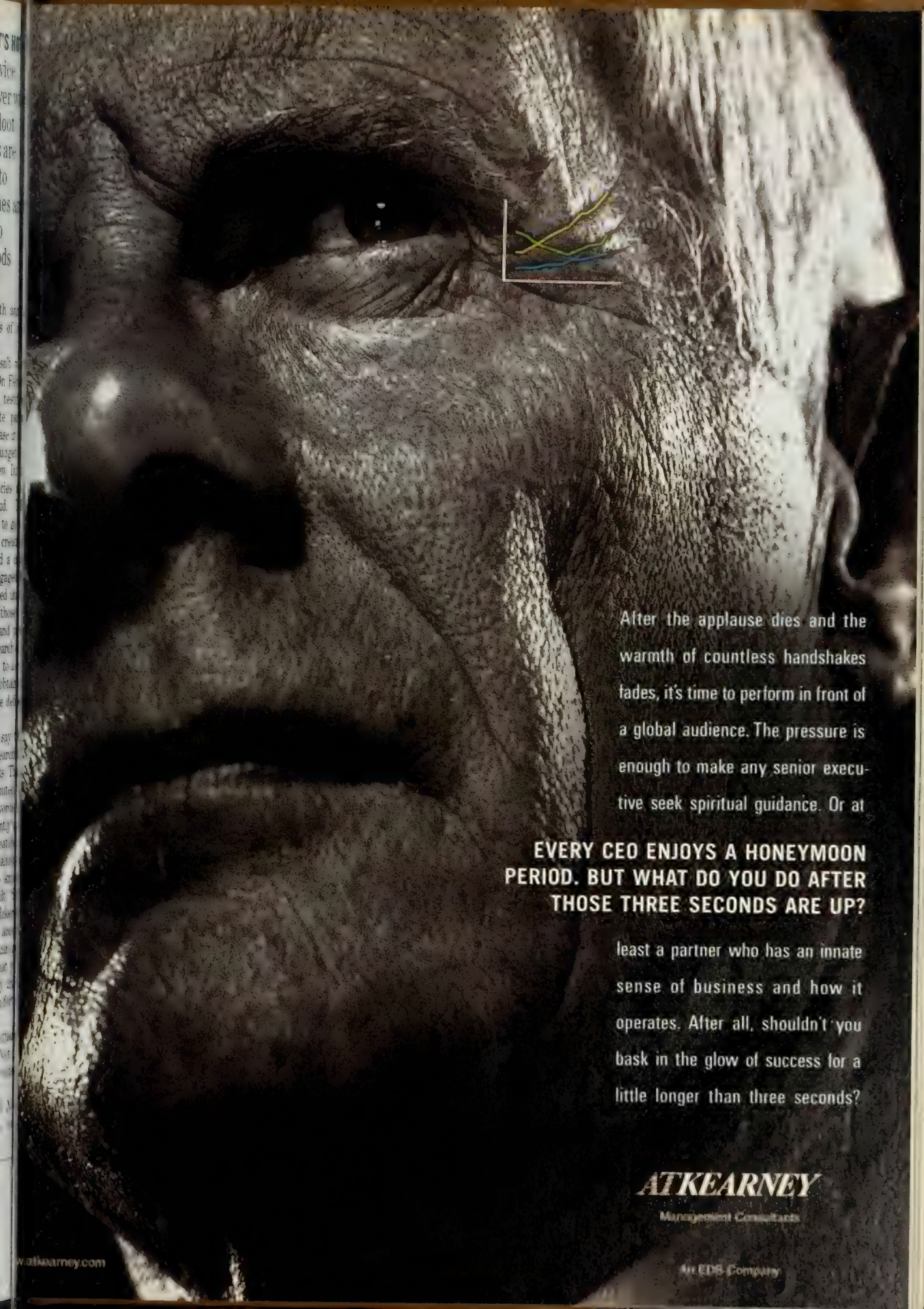
After the applause dies and the warmth of countless handshakes fades, it's time to perform in front of a global audience. The pressure is enough to make any senior executive seek spiritual guidance. Or at
EVERY CEO ENJOYS A HONEYMOON PERIOD. BUT WHAT DO YOU DO AFTER THOSE THREE SECONDS ARE UP?
least a partner who has an innate sense of business and how it operates. After all, shouldn't you bask in the glow of success for a little longer than three seconds?
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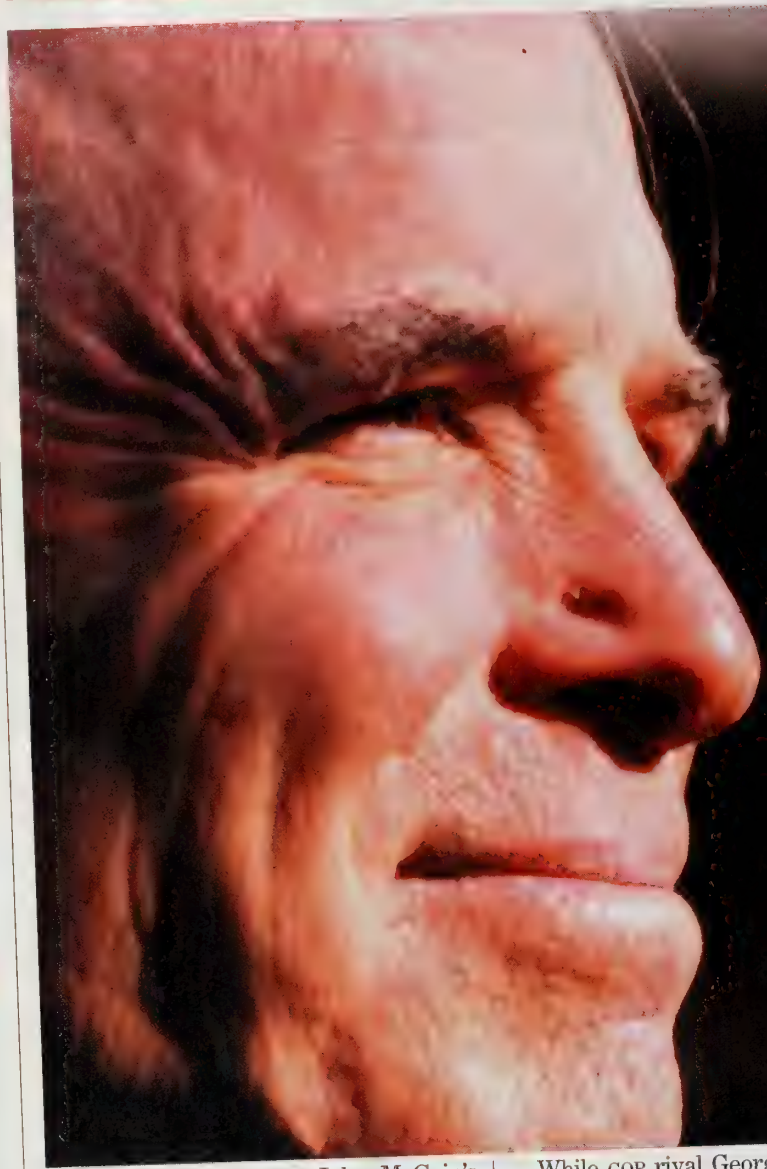

AGAINS THE GRAIN

McCain's economi are more Goldwat than classic GOI

Thus far, Senator John McCain's surging Presidential bid has been largely about three Ps—populism, personality, and the POW camps where the Vietnam War hero endured years of brutal treatment. Many voters just seem to like him, the way they did Ronald Reagan. But when it comes to the fourth P—policy—they'll be disappointed if they expect a replay of Reaganomics. With its mix of old-time Rotarian fiscal prudence and anti-Establishment reforms, McCain's version of economics marks a sharp departure from the supply-side dogma that has dominated the GOP for 20 years. Think Barry Goldwater, and you will be closer to where McCain ends up on economic issues.

ELECTION 2000 THE REPUBLICANS

While GOP rival George W. Bush tells voters that new 10-year-surplus projections leave plenty of room for a big tax cut, McCain wants to save any windfall to pay down the $3.4 trillion national debt and shore up Social Security. "What do you think is more conservative," he asks audiences, "a huge tax cut or saving Social Security?" Besides, he adds, "I'm not totally convinced there will be surpluses as far as the eye can see." So far, many voters seem inclined to agree.

McCain also is bucking another piece of 1990s Republican economic orthodoxy: The GOP's embrace of across-the-board tax cuts. McCain prefers to take modest steps toward tax reform rather than make broad rate cuts. He would reduce taxes for millions more Americans expanding the 15% tax bracket to clude households earning as much $70,000. It would also eliminate $ million in loopholes for such corpo taxpayers as oil and gas drillers, life surance companies, publishers, multinationals. "He's gone the farth of any of the candidates in talking ab the things that have to be change says Joel B. Slemrod, a University Michigan economist.

SMALL TEAM. But while smaller t Bush's, McCain's tax cuts are still q large. And many economists worry t cutting taxes at all while the econo is booming makes little sense. "We not need further stimulus, particula from the demand side," says Kathl Stephansen, senior economist at

McCain would lower taxes by shifting 25 millio

Wall Street investment firm Donaldson, Lufkin & Jenrette.

Not only did McCain come to different conclusions, he also arrived there in a very different way than his main rival for the GOP nomination. While Bush surrounds himself with an army of task forces and issues advisers, the Arizonan began only last May to pull together a small team led by Kevin A. Hassett, a 37-year-old scholar at the American Enterprise Institute and former Federal Reserve economist. McCain gave them firm marching orders: preserve Social Security and Medicare. Pay down the debt. And if any money is left, cut taxes.

Hassett and a group of relatively unknown academic economists worked out the broad details over four months. Without sophisticated computer models, the hardest part was figuring out what the schemes cost. "It took months," recalls Hassett. "I was relying on [campaign volunteers who were] English majors."

McCain's stress on debt reduction comes straight from the heart. After all, he's a protégé of the late Senator Goldwater, who in 1981 ripped Congress for ing taxes before balancing the bud- "It would be a disgrace if we were ass on a legacy of debt and broken mises to our children," says McCain. l reducing the debt may be the best g government can do for the econo- today. Says Carol A. Stone, deputy f economist at Nomura Securities, : "You can always argue that fiscal dence is good."

ut McCain's plan also reflects cold tical calculation. By targeting re- ment programs, McCain is lifting a paign plank that Democrats have d successfully against Republicans he past. First, he would set aside of the operating surplus—about 0 billion over 10 years—to help pay a transition to a beefed-up Social urity system. Like other Republicans, McCain promises that workers would be able to put aside about 20% of their payroll taxes into private accounts. But like other GOP candidates, he provides few details of how this system would coexist with the current trust fund. "None of the candidates is really putting forward a complete proposal. But if [as McCain insists] we pay down the debt and improve the economy, this will help when the problem comes due," says Urban Institute economist C. Eugene Steuerle.

ECONOMICS ACCORDING TO McCAIN

SOCIAL SECURITY Vows to fix the system in his first year as President. He would dedicate $500 billion over 10 years to make it solvent and allow workers to invest up to 20% of their payroll tax in private accounts, but McCain would let a bipartisan commission work out details.

TAXES Would cut taxes by $497 billion over 10 years, a third as much as Bush. McCain gears cuts to the middle class with less for the poor and rich, and plans gradual shift to a flat tax. Key provision: expanding the 15% bracket to couples earning up to $70,000.

INTERNET TAXES Would permanently ban sales taxes on Internet purchases. Bush would extend the current congressional moratorium on new Internet levies but leave existing sales taxes in place.

HEALTH CARE Would spend at least $70 billion to shore up Medicare. Backs a limited drug benefit for seniors, administered through states. Says HMO patients should have the right to sue. Favors new tax breaks for long-term care and health insurance, including expanded Medical Savings Accounts.

DATA: MCCAIN2000, BUSINESS WEEK

McCain's fiscal caution extends beyond retirement programs. He favors new spending for missile defense, along with boosts in military pay and veterans' programs. But he would try to offset part of the cost by trimming $20 billion from unneeded weapons programs and by pushing management reforms and base closings.

He takes a similar tack with tax cuts. Where Bush's are huge—at least $1.3 trillion over 10 years—McCain's are a downsized $497 billion. Where Bush has tax breaks for everyone, McCain vows to raise taxes on some corporations. And while the Texan distributes tax relief mostly to the poor and the very rich, McCain targets the middle class for the biggest help and calls his rival's plan a giveaway for wealthy backers.

CONTRADICTIONS. McCain's tax package also includes the usual GOP promises to eliminate the marriage penalty, expand medical savings accounts, and repeal the estate tax. But the most interesting aspects are his promises to shift to a flat tax-like system. He would do this in two ways: First, he would expand the current 15% tax bracket to 25 million families with incomes of $70,000 or less that now pay at the 28% rate. That would shift about 80% of all taxpayers into the lowest bracket.

McCain would also allow those same families to put aside up to $6,000 in tax-deferred savings accounts. Unlike individual retirement accounts, the money would not have to be saved for retirement. Rather, a family could defer taxes by simply holding the money for one year. Once it is withdrawn and spent, it would be treated as ordinary income. "His ultimate goal is not that different from Steve Forbes's flat tax," says Brookings Institution economist William G. Gale. "But he has a different way of getting there." And presumably, with Forbes's decision to quit the race, McCain may attract some of his limited support.

McCain has also proposed a permanent ban on sales taxes for goods purchased on the Internet—an idea that Governor Bush opposes. This highly controversial idea would give e-tailers a big price advantage over Main Street businesses, which would still have to collect sales taxes. But McCain sees the initiative as an incentive for tax reform on the state level, according to Hassett.

McCain recognizes that states could not sustain such a divided system, Hassett says. Instead, he figures, governors would eventually have to drop traditional sales taxes and adopt the same sort of consumption-based income tax that McCain is pushing at the federal

ilies from the 28% bracket down to the 15% rate

level "Retail sales taxes are going to have to evolve," Hassett says.

McCain's plan—like the man himself—isn't a model of consistency. For example, he proposes closing tax loopholes and says the tax code should not reward special interests. But at the same time, he would create a new set of tax incentives for long-term care and education. His Internet tax policy also raises contradictions. Even as he would bar states from taxing e-sales, thus taking away the potential of billions of dollars in revenues, he'd impose new demands on states for improving schools and health care.

Up to now, these details have been lost amid the din of an increasingly bitter Bush-McCain media war. The core of the Bush assault is that McCain's economic program is warmed-over Clintonism. McCain's fiscally conservative age should make that a hard sell.

By Howard Gleckm in Washin

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THE ENGINEER INSIDE McCAIN'S MONEY MACHINE

John McCain may not want to take special-interest money. But if he wants to stay in this primary race, he doesn't have much choice. So, back at McCain headquarters in Alexandria, Va., his chief fund-raiser, a 40-year-old dynamo named Carla Eudy, is burning up the phone lines to corporate execs and other monied Republicans. The message: We need dough, now, because the McCain Express is leaving the station.

EUDY PUTS SPECIAL FAITH IN THE WEB

Small donations are nice, but Eudy also needs the high rollers

Eudy, a professional fund-raising consultant who first won attention by raising megabucks for the abortive '96 Presidential bid of Senator Philip W. Gramm, is considered one of the best technicians in the business. But she faces no small challenge raising the funds to combat an aggressive media barrage in South Carolina and Michigan, the next two crucial contests from McCain's chief rival, George W. Bush.

"NO MAGIC." Using a combination of direct mail, Internet appeals for small donations, and a string of traditional high-dollar ($500 and $1000 a ticket) receptions, Eudy hopes to rustle up at least another $14 million. Why so much? On Mar. 7, when no fewer than 11 primaries and four caucuses will be held, candidates will be forced to compete in such costly media markets as California and New York while remaining visible in Ohio and 12 other states.

Thus far, McCain's fund-raising has lagged behind the Bush juggernaut. He has taken in only $17 million vs. Bush's record $70 million. But McCain, with his priceless media attention, gets more bang for his buck. So far, he has spent only $7 million to Bush's $39 million and has a 19-point romp over the Texas governor in New Hampshire to show for it.

Now that McCain is the man with the mo', Eudy's job is easier. "I'm on the phone all the time to people who said, 'Call me if John McCain wins,'" Eudy says. "There's no magic to it. It's just a lot of legwork." Since New Hampshire, McCain has been pulling in $60,000 to $80,000 a day via phone donations. Another $2.25 million has come in over the Net, thanks to a clever site that plays up his populist appeal.

ELECTION 2000 THE REPUBLICANS

Small donations are nice, but Eudy also needs the high rollers. So on Feb. 10, McCain expects to appear by satellite hook-up at fund-raising dinners in Washington, D. C., San Diego, Lansing, Mich., Scottsdale, Ariz., and Phoenix. That same night he'll go online for an interactive chat with those willing to click for cash. The expected one-day take: $800,000.

Who's signing on with Team McCain? Lobbyists scheduled to attend the Washington event include America Online Inc.'s senior vice-president for policy George Vradenburg III and reps for SBC Communications, BellSouth, and Echostar—all heavily involved with McCain in his day job as chairman of the Senate Commerce Committee. In California, on Feb. 24, he is counting on David S. Pottruck, co-CEO of Charles Schwab, media mogul Michael Bloomberg, and George R. Roberts, founding partner of LBO firm Kohlberg Kravis Roberts to do the heavy lifting with business.

At least one top Washington business rep won't be joining the stampede: former Reagan lobbyist Nicholas E. Calio. Noting McCain's promise to bash special interests and ax $150 billion in "corporate welfare," Calio says: "I hope business people have the guts to tell him to s---- himself. It's hugely hypocritical to ask for checks from the people you're attacking." But then again, it's politics.

By Lorraine Woellert and Lee Walczak, with Richard S. Dunham, in Washington

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MEDIA

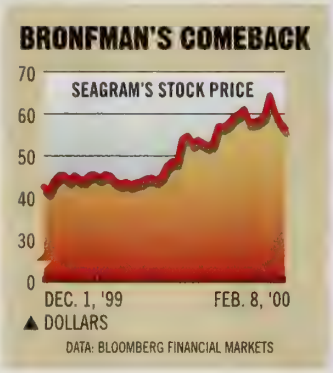
BRONFMAN AND DILLER: TOGETHER FOREVER?

Their odd business ties limit both execs' ability to compete

Edgar Bronfman Jr. should feel satisfied. Since December, the Seagram Co. chief executive has seen the stock of the Montreal-based company his grandfather founded 76 years ago rise more than 34%. Seagram was also set to release strong quarterly results on Feb. 9. And though Time Warner Inc.'s planned merger with EMI Group PLC will eclipse the music empire the younger Bronfman has assembled, his Universal Music Group is, for now, the largest on the planet.

But despite this, the pressure is on Bronfman to do even more. For all of his wheeling and dealing in recent years to establish Seagram as an operating company in entertainment and beverages geared heavily to music, he has two big problems: First, like other old media conglomerates, Seagram risks being marginalized in the wake of the merger of America Online Inc. and Time Warner. And second, there is Seagram's lucrative but unusual relationship with Barry Diller's USA Networks Inc. The partnership, which requires each to sign off on big ventures that USA would consider is looking more and more like a roadblock to both companies' plans to compete in the new media landscape.

Yet even with Diller in tow, Bronfman cannot seem to suppress rumors that he may be looking to cash in on his company's recently rising share price. Seagram executives refused to comment, but some of Bronfman's close associates claim that Edgar Jr. may be willing to sell not only his loss-plagued film operations, Universal Studios Inc., but all of Seagram. Why? The time for getting a hefty price for his company may never be better. According to one confidant, Bronfman wants a hefty premium to Seagram's current market value of about $25 billion—and would prefer to be paid in the convertible preferred stock of a bigger entity. That would give the Bronfman family, which owns 24% of Seagram, favorable tax treatment and dividends of up to $1 billion a year. For Bronfman personally, according to this person, an ideal transaction would also give him a pivotal stake in the bigger entity should he decide to convert those shares.



WHO'S IN CHARGE?
Diller can vote Seagram's 46% stake in USA Networks for life, but Bronfman can veto any Diller deal over $2 billion

Logically, Diller is in the best p tion to buy Bronfman's share of versal and combine it with his Networks, which includes television film production as well as cable works and TV stations. But Diller nies any current interest—and he p ably couldn't swallow all of Seag anyway. For that, Bronfman w need a buyer on the scale of Ru Murdoch's News Corp. Insiders that both News Corp. and Fran Canal Plus have had casual chats Bronfman, but no deal is in the ture. News Corp. wouldn't comm and a Canal spokesman says any of a deal is "comple groundless."

In the meant however, sources c to Diller say that he Bronfman are lookin ways to rework t tricky relationship. C rently, Diller can Seagram's 46% stak USA Networks for but Bronfman can any USA deal that's worth more t $2 billion. Seagram would not comm and Diller would say only that r tions with Bronfman are good.

DEALBREAKER. Still, strategic dif ences between the two have built and even if no serious sale ef emerges, pressure is rising for Br man and Diller to come up with a ter working model. While Bronfm has focused on Seagram's music, bo and studio assets, he has effecti outsourced Universal's television b ness to Diller. Since the USA Netwo deal was put together in 1998, D has given Seagram a paper gain close to $9 billion. But there's a ca Bronfman vetoed Diller when he t to buy NBC in 1998 because he di want to dilute Seagram's control stake. Insiders say it's not the c deal Diller has pursued that has b knocked down.

Bronfman's original plan was t Diller would build USA Networks in great company and, on Diller's ret ment, Seagram would exercise its r to assume control of it. But Diller, Bronfman, has to grow his company avoid being swept under the AOL-Time Warner d And for now, they seem be stuck in the same b arguing over who will r

By Richard Siklos New York and Ron Grover in Los Angeles

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COMMENTARY

By John A. Byrne and Ronald Grover

MATTEL'S LACK-OF-ACTION FIGURES

It took an agonizing eight-hour board meeting before Jill E. Barad resigned as chairman and CEO of toymaker Mattel Inc. on Feb. 3. The real question is why it took that long—not so much in hours but in months.

After all, investors have seen what was a well-run, profitable enterprise fall into complete disarray under Barad's three-year reign as CEO. Today, Mattel is a company losing money, vulnerable as a takeover target. It lacks a CEO, a chief operating officer, a chief financial officer, and a division president for its international business. In the past 18 months alone, Mattel stock fell nearly 75%, costing more than $12 billion in market value. The problems now run so deep and broad that they will complicate the company's current search for a new leader.

So why did the board wait to take a more active role or come to the conclusion that Barad should leave? Why didn't it insist on having a successor or two in place as the mounting troubles raised ever more questions over whether Barad would be able to get the company back on track?

Clearly, the classic warning signs of trouble were there for all to see:

■ **Management turnover.** From the start, a steady stream of executive defections marked Barad's tenure as chief. Within the past year alone, Mattel lost its COO and international president, the head of its Fisher-Price unit, and its CFO, who officially leaves in March. "In the end, she alienated the very individuals charged with helping her grow the company and deliver shareholder value," says Roger Brunswick, a managing partner of consultants Hayes, Brunswick & Partners.

■ **Management miscues.** Like Toys 'R' Us Inc., Mattel badly fumbled its Internet operations in the midst of the crucial holiday season. Even worse, Barad paid far too much for her $3.5 billion acquisition last year of Learning Co., the troubled children's software unit. "I and a lot of others on the Street have been telling this company for a long time that Learning Co. was a house of cards just waiting to happen," says analyst Sean P. McGowan, with Gerard Klauer Mattison & Co.

> A stronger board would have acted when warning flags unfurled

■ **Earnings surprises.** At a time when Wall Street has no tolerance for surprise, Barad kept promising results that she could not produce.

■ **Refusal to accept responsibility.** No less troublesome, Barad never assumed responsibility for the earnings surprises or adverse announcements. Instead, she blamed her subordinates and summarily sacked them.

Board members say they prodded Barad in mid-October to hire a search firm to look for a COO and to bring in forensic accountants to take a closer look at the financial problems at Learning Co. In retrospect, it seems too little, too late. A stronger board would have taken action as soon as warning flags unfurled. Directors would have interviewed at least some of the exiting executives, more closely examined the Learning acquisition, and also worked to correct Barad's shortcomings as a leader.

As boards go, Mattel's is hardly impressive. It lacks a single current or retired CEO of a major corporation. Including Barad, three of the 11 directors were insiders. Another, acting CEO Ronald M. Loeb, is a retired senior partner of Mattel's outside law firm. Yet another board member, Pleasant T. Rowland, sold her Pleasant Co. doll company to Mattel. As soon as it manages to find a new CEO, this board should also set about reforming itself.

Mattel's directors may have cut Barad more slack because they greatly admired her pre-CEO track record in building the company's Barbie franchise. "We know her and her family," says William D. Rollnick, a director and interim board chairman. "We respect what she did for this company." Maybe that's why one disgruntled investor suggested a new toy for Mattel: board member action figures that do nothing but trip over one another.

Byrne covers management in New York and Grover writes about Mattel from Los Angeles.

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EMPLOYEE BENEFITS

WORKERS OF THE WORLD, LOG ON

Ford and Delta are the first to offer this benefit: Cheap PCs

Tara Parker can't wait to get her hands on her new PC. The 29-year-old Ford Motor Co. factory worker, who installs door locks in Escort compacts, has taken a computer class at a nearby community college, but couldn't afford her own PC. So she says she felt "truly blessed" when Ford announced on Feb. 3 that it will offer a desktop computer, printer, and Internet access to its 350,000 employees worldwide, for a $5 monthly fee. Says Parker: "I want to see what this Internet world is all about." Ultimately, she hopes to earn a computer science degree and get a better job at Ford, explaining, "I don't want to stay on the assembly line forever."

That's exactly what Ford Chief Executive Jacques A. Nasser had in mind with his PC-in-every-home plan. It's not just another juicy perk. Says Nasser: "This program keeps Ford Motor Co. and our worldwide team at the leading edge of e-business technology and skills."

Many executives are beginning to see it his way. A day after Ford announced its deal, Delta Air Lines Inc. unveiled plans to do much the same for its 72,000 workers. The United Auto Workers, which first raised the idea of computer access to Nasser during last summer's contract negotiations, is pushing DaimlerChrysler to adopt a similar plan. And, BUSINESS WEEK has learned, at least one national health-care company is negotiating a similar deal to put millions of health professionals and medical students online. "We have a significant list of companies that want to work with us," says Nick Grouf, chairman of PeoplePC Inc., the middleman handling the purchase, delivery, and technical support for many of these computer deals.

Indeed, offering inexpensive computers to workers may be on the way to becoming a common employee benefit, much like health-care coverage or tuition assistance. The reason: Not only is it a good deal for workers, it also helps employers develop a workforce better able to meet a company's needs. At a time when employers from every industry are scouring the land for potential employees with computer skills, how could it not? "This is one of those ideas that has a lot of business leaders hitting their heads and saying, 'Why didn't I think of this?'" says John A. Challenger, chief executive of Challenger Gray & Christmas Inc. in Chicago. "In a skills-short environment where it's hard to find people with the right knowhow, it's an amazing c petitive edge."

WIRED It is a good deal for labor, and it helps companies develop a tech-savvy workforce

Of course, such traditional mana ment goals as boosting productivity play a big role. Delta said on Feb. 4 it will offer its employees computers Internet access for $12 a month, callin an investment in "technology infrast ture." Delta hopes it will save mo but also wants to make it easier for p and flight attendants to sch ule their flights while a from the home office, s Robert P. DeRodes, Del chief information offi "They're on the road const ly," he says, "and we felt was a way to keep them c to the company."

GRAND PLAN. Ford is mak the effort—and spending so where between $50 million $150 million—because gett workers wired to the Ne part of Nasser's grand sche to turn the auto maker int consumer-focused powerho Not only will employees savvier about using comput at work but he figures the catch on faster to the new stant-gratification mind among e-consumers. For stance, Net-surfing work might see Web sites grous about Ford quality, sugge James A. Yost, the compa chief information officer. "W like to make sure all of our e ployees are aware of what customers think of us, in a v personal and direct manner," says.

Plugging hourly workers i the Net will also make it eas for Ford to communicate w employees worldwide. Facto workers can get—and re to—Nasser's weekly "Le Chat" e-mail that already g to Ford's 101,000 white-co employees. And they can ch on shift-change notices, benefits, and co pany financial reports via a Ford por

Still, the mass wiring-up won't b breeze. Ford and Delta still have to i out details of who qualifies for what co puter. And the task of handling the gistics for 400,000-plus computers will enormous, both for the companies a four-month-old PeoplePC, which is pected to go public soon. No bigg though, than the market's potential.

By Kathleen Kerwin in Detroit, w Peter Burrows in San Mateo, Calif., a Dean Foust in Atlanta

INVASION OF THE DOTS

LOOK, UP IN THE SKY, IT'S A WHOLE NEW DOT-CONOMY! IT'S AN INVASION OF INGENUITY, POWERED BY TECHNOLOGY THAT SEEMS OTHERWORLDLY BUT COMES FROM THE DOT IN .COM, SUN MICROSYSTEMS. SUN ARMS INVADERS WITH AN ARSENAL OF ENTERPRISE SERVERS THAT SCALE TO MEET THE INTERNET GROWTH CURVES OF POWERHOUSES LIKE CDNOW AND E*TRADE. AND THOSE SERVERS ARE LOADED WITH THE ALL-POWERFUL SOLARIS, A TRUE .COM OPERATING ENVIRONMENT (15 OF 20 GLOBAL ISPs RUN ON IT). BEWARE, THESE INVADERS WILL GROW SMARTER AS THEY UNLOCK THEIR GROWING DATABASE OF INTELLIGENCE WITH SUN'S OPEN STORAGE SOLUTIONS. CAN YOU BE AN INVADER? YOU CAN. SUN SERVICES WILL PREPARE YOU—WHETHER YOU ARE ARMED FOR YOUR FIRST BATTLE OR RETOOLING YOUR FORCES FOR THE NEW WORLD. RED ALERT: THE .COM INVASION IS HERE. PLEASE, IF YOU DO NOT TAKE PART, AT LEAST HAVE THE GOOD SENSE TO GET OUT OF THE WAY.

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'ED BY PAT WECHSLER

IGHT IN BOEING'S TLE OF NERVES

22,000 ENGINEERS WHO ed off the job at Boeing eb. 9 may pay the price EO Philip Condit's need ow how tough he is. Last Condit stepped in at the minute to avert a threat- strike by machinists. In- s say he was roundly ized by President Harry ecipher for giving away store. Stonecipher, the er CEO of McDonnell glas, came aboard when wo companies merged in . His push for cost cuts angered Boeing's unions, h have had good relations Condit. Now, Condit, flew to Singapore for oth- usiness after talks with engineers broke down on Feb. 8, is trying to show he can stand up to labor. "What's going on here is the battle between Condit and Stonecipher again," says Paul Almeida, president of the International Federation of Professional & Technical Engineers, which represents Boeing engineers.

CLOSING BELL

BILL OF HEALTH

tech upstart Boston medica, based in West dgewater, Mass., won FDA roval on Feb. 9 for a duct that double-checks od supplies for HIV tamination. The stock ce closed up 7 3/16, 12 11/16. "This puts us the radar screen," says O Richard Schumacher. d there may be more od news ahead: Although main market had been nation's 300 blood nks, Boston Biomedica is pping up sales to the ,000 U.S. hospital labs.

DATA: BLOOMBERG FINANCIAL MARKETS

PCs CLOSE IN ON WARP SPEED

BY YEAREND, PCS COULD ZIP away at a boggling 1 billion cycles per second—or even faster. On Feb. 7, Intel showed off a prototype 1-gigahertz Pentium III processor in San Francisco. Not to be outdone, Advanced Micro Devices unveiled the same day a 1.1-GHz Athlon chip built using new copper-chip technology. Neither company would commit to a delivery date, but AMD says it'll ship a 1-GHz Athlon by the fourth quarter. Says analyst Manoj Nadkarni of ChipInvestor.com: "AMD has caught up to Intel in chip design."

AETNA GETS NO RESPECT

AFTER NOTHING BUT BAD NEWS for months, Aetna finally came up with a 30% jump in operating profits on Feb. 8 in the fourth quarter. But was the market impressed? Not really. Aetna shares dipped 17% that day. Why? Investors decided the numbers were not all they appeared to be for the Hartford health insurer. Take away the one-time gain from the sale of a Brazilian subsidiary and factor in an unusually low tax rate, and what you are left with are Aetna's rising costs. CEO Richard Huber says investors are largely ignoring the bigger picture. "Financial services represents 55% of our earnings," he says. "[There] we've had growth in the high teens for years."

HEADLINER: PETER JOB

REUTERS JUMPS INTO THE NET

After some years of dithering about the Internet, information giant Reuters Group is taking the plunge. CEO Peter Job said on Feb. 8 that the London-based company will spend $800 million over the next three years to make itself a financial portal for retail investors and put its news and securities quotes online.

The market loved the Net plan. Reuters' stock, which has gyrated of late, closed in the U.S. at 132 on Feb. 9, up 33% in two days. Investors also applauded Reuters' decision to float its successful Net startup fund. An initial public offering of its electronic trading unit, Instinet, is also possible. But whether Reuters has found a cure for its single-digit growth remains to be seen. The Net will help it tap a bigger market, but online prices for its products inevitably will be far lower. The trick will be gaining enough volume to make up for the difference. Meanwhile, Instinet's commissions already are being squeezed by rivals, and foreign-exchange trading has fallen, thanks to the introduction of the euro.

By Stanley Reed in London

IRIDIUM: McCAW TO THE RESCUE

IRIDIUM HAS A SAVIOR AT last. The ill-fated Washington (D.C.)-based satellite-phone company filed a plan in bankruptcy court on Feb. 9 that lays out a rescue led by wireless mogul Craig McCaw. McCaw and a group of investors, including Motorola, will inject $74.6 million of interim financing into the company. That's enough to keep Iridium afloat until midyear. By then, the company is expected to have a formal restructuring plan in place that will eventually take it out of bankruptcy.

SBC CASTS A WIDER NET

TEXAS-BASED BABY BELL SBC Communications is making good on a promise it made to regulators to deliver telecommunications services outside its 13 home states. The company said on Feb. 8 that it had sealed an alliance with Internet service provider Network Access Solutions to offer service in new markets. Under the new agreement, SBC and Teléfonos de Mexico will invest $150 million in Network Access. The money will then be used to expand into regions now served by BellSouth and U S West over the next 12 months.

ET CETERA . . .

- Credit Suisse and Goldman Sachs were hired to arrange MetLife's $6.5 billion IPO.
- The SEC may require companies to open up road shows to individual investors.
- PepsiCo earnings rose 26% on sales of Frito-Lay snacks and reduced costs.
- Pfizer and Warner-Lambert merged to create the world's second largest company.

EDITED BY PAULA DWYER

NORMAL TRADE FOR CHINA? THE ODDS ARE LOOKING LONGER

Last November, when U.S. Trade Representative Charlene Barshefsky toasted China's momentous agreement to lower trade barriers and join the World Trade Organization, Corporate America had high hopes that China's vast market finally would open up. As part of the deal, President Clinton promised to persuade Congress to end Beijing's humiliating annual ritual of obtaining temporary Most Favored Nation status. But making good on the pledge is proving difficult. It's unclear whether a vote to permanently normalize China's trade status will even take place before Clinton leaves office.

This year's unusual calendar is one problem. Given a long summer break for the Presidential nominating conventions and a fall recess for House and Senate members to conduct their campaigns, only about 70 legislative days remain in the year. Further complicating matters is a June 3 deadline for Clinton to renew China's annual waiver from the Jackson-Vanik Amendment, the statute that now requires yearly renewal of China's trade status. That means the Clintonites may have to pursue liberalization on two tracks simultaneously—one annual, the other permanent.

GEPHARDT: *Washington must move fast*

NARROW WINDOW. There's also a game of chicken going on between Democrats and Republicans. GOP leaders want to delay a vote until the eve of the Democratic National Convention in August to drive a wedge between Dems and their labor supporters, who oppose permanent MFN for China. Democrats, on the other hand, want to resolve the issue quickly to save Vice-President Al Gore, whom labor endorses despite his support of China, from embarrassment. That narrows the window of opportunity. "I think the President feels strongly that if this is not done before June that we shouldn't be trying to take this issue up at the end of the session," says House Minority Leader Richard A. Gephardt (D-Mo.), a China critic who hasn't said where he stands on

Another sticking point: Talks among China, the Euro Union, and the WTO are dragging on, and GOP lawmakers they won't consider China's permanent status until negotiat end. But the EU won't be rushed. "We think it is unreason if the Americans say, 'We have our bilateral agreement everyone else now must sign on the dotted line,'" says a negotiator. Even if the EU reaches an accord with China, jing faces weeks or even months of discussions with the G va-based WTO over consolidating all of its market-opening into one giant agreement.

As if those political bumps in the weren't enough, there are diplom potholes. The White House intend push for a March declaration by U.N. Commission on Human Rights nouncing China. And on Mar. 18, wan will hold its elections. Either e could goad China into an angry sponse, such as another crackdow political dissent, and hand congressi critics more reason to delay.

Even against such odds, business byists say the stakes are too high to On Feb. 8, dozens of corporate lea trekked from a White House pep talk to Capitol Hill to t arms. Boeing Co., an avid China supporter, hopes to sell the dle Kingdom 1,600 passenger jets worth $120 billion ove years. "We are early in the process, and this vote is cle winnable," insists Boeing CEO Philip M. Condit.

Others delivered a blunter message: Campaign contr tions now will go to lawmakers "who are supportive of ideals," said Robert N. Burt, chairman and CEO of FMC C and the Business Roundtable's new chairman. In an elec year, checkbooks slapping shut always get attention. But real question is whether there will be any vote at all.

By Paul Magnusson, with William Echikson in Brus

CAPITAL WRAPUP

A BOOST FOR WIRELESS

▶ The Federal Communications Commission is preparing America to cut the cord. On Feb. 17, it is likely to rule on proposals to help spur the use of wireless phones. Says FCC Chairman William E. Kennard: "The market is waking up to the potential of wireless to break the local bottleneck" of local phone companies and cable systems.

For starters, regulators are set to adopt a "calling party pays" rule. Today, U.S. wireless-phone users pay not only for the calls they make but also for ones they receive. That has kept users from giving out their numbers as freely as they would regular phone numbers. The FCC is expected to require that only callers pay for connections. That would bring the U.S. in line with Europe, where wireless usage is higher.

The FCC staff also is likely to analyze the use of wireless technology for high-speed Internet access in an upcoming annual report on broadband competition. Until now, consumers and businesses have focused on the phone companies' digital subscriber line services and cable operators' modem services as the best broadband avenues. The FCC believes wireless broadband offers yet another competitive alternative.

Later this year, the FCC is expecte to give a boost to wireless technolog by auctioning off more airwaves. In May, it is scheduled to sell spectrum vacated by broadcasters that are aba doning analog stations for digital one Industry experts say those airwaves are ideal for wireless Net application as well as for voice service. Potential bidders, such as Microsoft Corp. and PSINet Inc., are studying the prospec

By Catherine Ya

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THE RACE TO RULE MOBILE

As cell phones and the Net merge in Europe, giants are scrambling

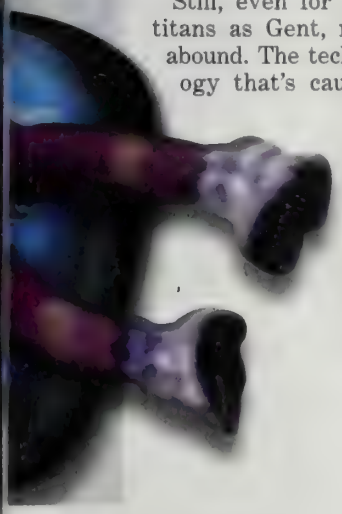
Up until a couple of years ago, the mobile-phone convention in Cannes was a quiet European affair. Sipping champagne on yachts docked in the Riviera harbor, Swedes, Germans, and Britons would enjoy the winter sun and exchange thoughts about handsets and transmission stations, the nuts and bolts of their business.

Those sleepy days are history. As mobile phones have taken Europe by storm, the regulars at the February Cannes meeting have grown into global megastars. In one booth is Nokia, continental Europe's most valuable company. Down the aisle is Vodafone AirTouch PLC, just now closing its $183 billion buyout of German rival Mannesmann, the biggest takeover in history. And it's not just the phone companies jamming the corridors. Microsoft runs a big booth, as do Dell, Cisco, and Sony. The whole tech world is pushing madly for a place in the cell-phone business.

Why such excitement? The marria of the two biggest tech trends, mob phones and the Internet, is shaking the Old World. As a global busines it's still in its infancy, with few serio customers outside Japan and Scand navia. But the prospect of the Intern untethered—e-mail and e-commer traveling in a billion pockets and pur es—is intoxicating. It has turned Qua comm into one of America's hotte stocks, and NTT DoCoMo, Japan's cell lar giant, into the richest valuation the Nikkei. But Europe is the epicent of the revolution: "It's the biggest ma ket and the test bed for mobile data says Matt Desch, president of wirele services at Nortel Networks Corp.

The money pouring into the mobile Net is convulsing Europe's once sleepy telecom industry. Investors continue to bid up the stock of predators like Vodafone, whose Chief Executive Chris Gent can raise $50 billion with a phone call. With his Mannesmann deal, Gent now runs phone companies in all of Europe's major economies, as well as the U.S. And his growth is likely to force European rivals like Deutsche Telekom and France Télécom to follow suit. "There are bound to be more deals of the Vodafone-Mannesmann nature," says Peter Bonfield, CEO of British Telecommunications PLC.

Still, even for such titans as Gent, risks abound. The technology that's causing



r stock to soar—the Internet—could act undermine them. To stay on top, ope's phone companies must transn themselves into Net companies. t's a scary prospect, since it's a mar they don't know. Over the last few rs, many have gotten rich selling ey talk minutes to a Continent enalled with mobile gabbing. Now, with wing competition, the tariffs for ne calls are plummeting. That's why it and company must not only conict the mobile Internet, but make of money from it. "Mobile data and Internet will be the strongest driver growth in our industry," Gent says. Where do the Europeans look to ng this cybervision to life? That's where bruising new competition enters the picture. Europe's leaders may know cell phones inside out, but the Americans rule the Internet. As the two technologies merge, the phone companies and Internet stars such as Yahoo! and America Online Inc. are hunting for their niches in the business. All hope to skim off the best business for themselves—the ads, for example, and commissions for e-business transactions. They're aiming to relegate the other players' products—the handsets and phone service—to mere commodities, just the connection to the Net.

Three Titans Face Off

COMPANY	STRENGTH	THREAT
NOKIA Ollila	World leader in handsets	Chipmakers, following Intel's personal-computer strategy, could turn cell phones into commodities
VODAFONE Gent	Biggest international mobile-phone company	Savvy Internet companies, such as Yahoo!, could nab Vodafone's Net business, turning the mobile star into a mere wireless pipeline
AOL Case	Internet titan	Must race to catch up fast on wireless, or risk losing out on the next stage of the Net

DATA: BUSINESS WEEK

That's just the outcome Gent wants to avoid. With nearly 50 million customers, he will have more than twice as many subscribers as AOL, the world's largest Internet service provider. He is working with a host of tech companies, from IBM to Nokia, to put together a mobile portal by the end of this year. The idea is that Vodafone, unlike American phone companies, will dominate the Internet that runs through its network. But AOL, which has lots more experience delivering Internet services, is also working with Nokia on a similar product. AOL plans to step between the phone companies and their customers, and make off with the rich business. "It has tremendous potential for us," says AOL International President Michael Lynton.

ATTITUDE ADJUSTMENT. Not only AOL is trying this tactic. The entire tech galaxy is descending on Europe. Microsoft Corp. is setting up joint ventures with British Telecom in London and Ericsson in Sweden. Intel is building memory chips for Web phones in Stockholm. Cisco Systems is scooping up mobile data companies. Nokia Chairman Jorma Ollila sees a dramatic change in the Americans' attitude. For years he found Americans skeptical about the possibilities of a mobile Net on tiny phone screens. "Suddenly," he says, "they're all singing our song."

AFTER THE DEAL

The movement toward the mobile Net is fueled not only by the truckloads of money pouring into the industry. It's also driven by the fear of being left behind. In the frenzy of innovation sure to occur, new companies, marketing strategies, and technologies will emerge. Some could even rattle the likes of Vodafone. "History has shown that tech leaders get ambushed," says Jack McMaster, CEO of KPN Qwest, a Europe-wide phone company.

The first unsettling innovations are already popping up: While Europeans lead in phones, Asians are kings of consumer electronics. As the mobile Internet advances into live video and stereo, Sony, Matsushita, and Samsung are likely to unleash an avalanche of multimedia phones. Most will be first test-marketed in Japan, home of the world's most advanced mobile Net. Meanwhile, Silicon Valley powers are turning the latest personal digital assistants into phones.

Branded marketers are jumping into the mobile business too. Richard Branson, chairman of Britain's Virgin Group, has plunged into the cell-phone business without even building one transmission tower. Branson simply purchased idle cell-phone capacity from a British also-ran and launched his own phone service. His Virgin Telecom has picked up 150,000 customers in the six weeks since it was launched.

Other challenges could come from innovations to the phones themselves. Newcomers such as Intel Corp. are plowing resources into mobile telephony. If they can produce chips that are smart enough, they could turn phones into commodities—just as they have with today's personal computers. Even smartcard makers are turning tiny chips into

valuable tools. France's Gemplus is working on a $10 chip that can be installed in any cell phone in Europe—and turn it into a basic Web surfer. Customers won't have to save $500 for Nokia's zippy new 7110 Web phone.

SIZE DOESN'T MATTER. Even as Europe's phone companies navigate the technology maze, they must also confront the new giant in their midst. Vodafone has key advantages over its smaller competitors. It can offer bargains on international roaming charges—the extra fees when cell-phone users call outside their home territories. That's a plus for business travelers. Vodafone's size should also give it leverage to cut the best deals on phones and transmission stations from suppliers like Nokia. But while it is biggest overall, Vodafone lags the national players inside many European countries, so it will have to fight for dominance market by market.

Nevertheless, Vodafone's size is pushing competitors in Europe to bulk up on their own. Spain's Telefónica or Telecom Italia could become takeover targets. In a market awash with easy money, even venerable powers like British Telecom could find themselves under attack. For muscle, the Europeans may find themselves teaming up with U.S. Baby Bells anxious to develop expertise on the mobile Net.

For now, the next golden opportunity likely to come on the market is Orange, Britain's third-largest mobile-phone company. Mannesmann CEO Klaus Esser scooped it up for $33 billion in October, hoping it would protect him from Vodafone's advances. That backfired and pushed Gent to make his bid. Now, Gent is preparing to unload Orange, and could land as much as $45 billion. The Netherlands' KPN, perhaps allied with BellSouth, may go after Orange. A long shot is Japan's DoCoMo. But the most likely bet is France Télécom, which is keen to bulk up in Britain.

How long will this gorging last? As long as investors trust that Europe's phone companies hold keys to the mobile Net, they'll pump stock prices sky high. That should provide the winners with more takeover currency to use against their rivals. It may only be a matter of months before this select bunch begins to cross the Atlantic to prepare for the next phase of the mobile Net, in America. For Europe's new cyberwarriors, those days of lolling on the Riviera are a distant memory.

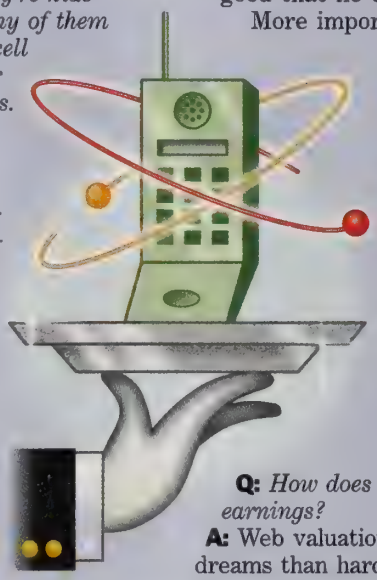
By Stephen Baker in Cannes, with Kerry Capell in London, and bureau reports

WHAT'S A CELL-PHONE USER WORTH?

AFTER THE DEAL

The flights are boarding at Paris' Charles de Gaulle or Berlin's Tegel Airport, and the cell-phone hard-liners are lingering near the gate. They have their tickets and passports in one hand, while making just one last call with the other. These are Chris Gent's people, his champions. In his $183 billion buyout of Mannesmann, the chairman of Vodafone AirTouch PLC spent a startling $12,400 per subscriber. And for such premium callers, who can spend $2,000 a month on cell-phone calls, Gent probably got a bargain.

But Gent also bought millions of lower-rent subscribers. These are the folks dallying on the subway steps in Munich or Milan. They're kids for the most part. Many of them pay $100 for a cheap cell phone with an hour or two of prepaid minutes. They restock the phones with minutes when they have an extra $20 or $30. As Europe's cell-phone population exploded last year, from 93 million to 170 million, most of the newcomers were penny-pinchers on prepaid cards. This raises key questions about how much a cellular subscriber is worth. BUSINESS WEEK's European technology correspondent, Stephen Baker, analyzes whether Gent paid the right price for Mannesmann in his bid to dominate Europe's wireless market.



Q: *Did Vodafone overpay?*
A: Based on most available comparisons, yes. In AT&T's cable deals, which are the heart of its Internet strategy, the company spent an average of $5,000 per home. Just last fall, Deutsche Telekom spent $6,000 per customer in buying Britain's One 2 One, and Mannesmann dealt out $7,000 per customer two months later, when it bought Orange. Gent criticized Mannesmann for overpaying.

Q: *How can he justify spending so much for Mannesmann?*
A: First, look at what he's spending his own sky-high stock. Gent traded a hair less than half his company for Mannesmann. While he nudged up the percentage a couple of times, it was the market that placed the astronomic dollar valuation on it.

Q: *So the investors overpaid.*
A: That depends on two things. First, can Gent turn his new dominance in Europe into a strategic advantage, giving him leverage over suppliers and a marketing edge over competitors such as Deutsche Telekom? Chances are good that he can.

More important, can Gent develop Vodafone into a mobile Web power? He's counting on the Web to link him for life to his 50 million customers. After all, you operate your bank account and receive mobile e-mails through your phone company's service, you're not likely to switch carriers.

Q: *How does this translate into earnings?*
A: Web valuations are tied more to dreams than hard numbers. But still, this mobile market could reach 1 billion people by late this decade. Gent is working with France's Vivendi, Finland's Nokia, and others to develop a mobile portal. He claims he can become the America Online of the mobile Net, selling services wrapped in advertising all day long.

Q: *Can he?*
A: Are Bell Atlantic or AT&T kings of the U.S. Net? Phone companies are great at connecting voice lines but usually bad at selling Web services. To win in mobile cyberspace, and to justify the pile of stock he's spending for Mannesmann, Gent must prove to be the exception.

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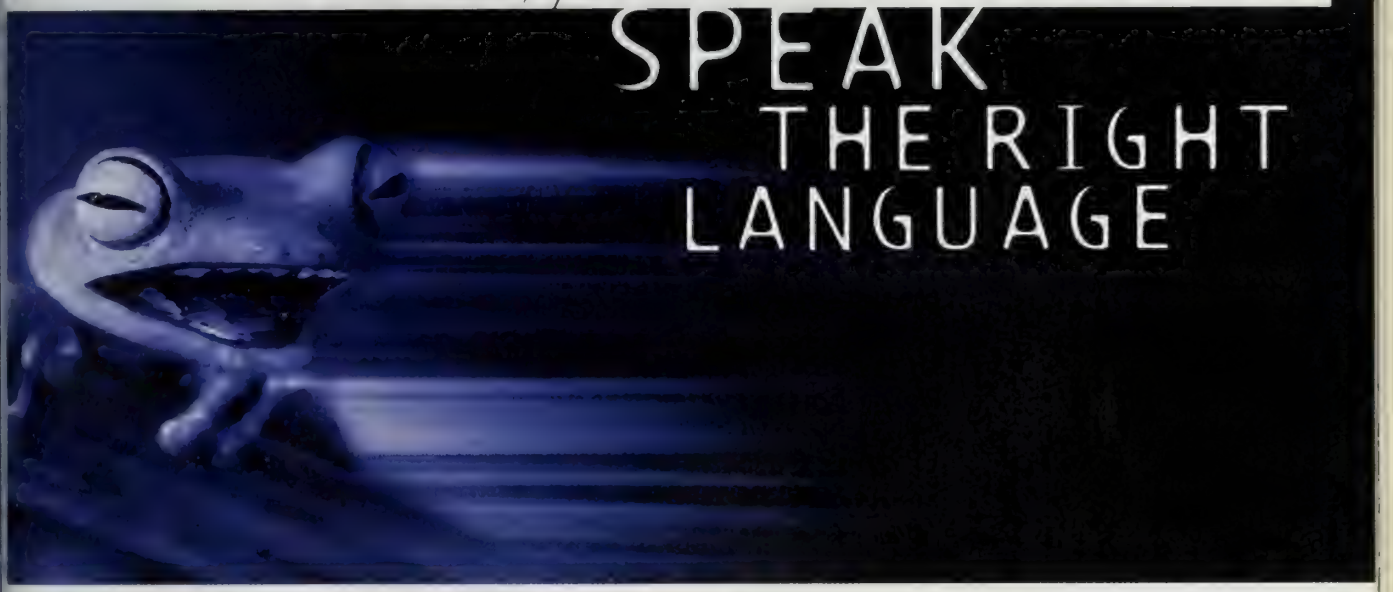

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DEALMAKERS

Goldman's Mead and Dingemans confer with Chris Gent

THE WIZARDS OF TELECOM

Goldman has bankers behind nearly every big merger

Vodafone AirTouch PLC's takeover of Mannesmann was also a huge win for Goldman, Sachs & Co. The American investment bank helped mastermind the winning bid for Vodafone's German rival—and will rake in a major chunk of the $640 million in fees Vodafone is expected to pay out.

AFTER THE DEAL

Goldman's success goes back to the late 1980s when the firm targeted telecom and media as a hot sector of the future in both Europe and Asia and carefully built a stable of clients they picked as winners in the coming merger wars. Thus Goldman has done almost every major deal for Vodafone since 1988, when it helped create the company from units of Britain's Racal Electronics PLC. "I have to give them credit," says an executive at an American competitor in London. "They saw things early."

BIG HITTERS. But while Goldman's presence at the vortex of the telecom industry generates huge fees, the firm faces a daunting challenge in doing justice to all its powerful clients as the industry consolidates. "It is becoming more and more difficult," says Vodafone CEO Chris Gent. "There are too many telecom companies and not enough banks."

Goldman's network of big hitters includes Deutsche Telekom CEO Ron Sommer and media mogul Rupert Murdoch. In Asia, Goldman is closely linked to Hong Kong tycoon Li Ka-shing: The firm helped his Hutchison Whampoa Ltd. sell its British mobile operator Orange PLC to Mannesmann for $33 billion last fall. Goldman is also the key adviser to Japan's cell-phone operator NTT DoCoMo. Telephone companies are "the biggest elephants in the jungle," says E. Scott Mead, Goldman's global telecoms co-head.

Mead came to London 12 years ago to build the telecom business. He and Goldman M&A specialist Simon Dingemans meet regularly with Gent to plot strategy and "help bring Gent's dreams to reality." Gent likes the straight advice he gets from Mead and appreciates the entrée to industry leaders that Goldman has given him. "There is no question in my mind that we have a very strong team at Goldman Sachs," says Gent.

But the partnership has had its stormy moments. Vodafone broke off relations after Goldman took Vodafone rival Orange public in 1996. The relationship was mended when Gent became CEO a year later. Yet Gent questioned Goldman's subsequent decision to help sell Orange to his German rival Mannesmann. "This one didn't look clever initial says Gent. "I s 'I don't underst what is going here. We are y major client.'"

As a res Gent says he some "punchy sions" with the likes of Goldman Henry Paulson and Co-Chief Opera Officer John L. Thornton, who felt t could not turn down Li. But Goldr eventually convinced Gent and his bo of its total commitment to the Mann mann takeover.

"REPUTATIONAL RISK." The result i cascade of fees, and Goldman is lik to earn more from helping Vodaf sell Orange to satisfy the antitrust thorities. Meanwhile, Goldman con ues to refine its approach. The firn creating a special unit of telec bankers, high-yield pros, and priv equity personnel within its London fice to target more telecom and In net deals. This reorganization reflec view in the industry that provid capital for emerging telecom and ternet companies and taking stakes them may surpass mergers and acc sitions as a big moneymaker. Goldr has $10 to $12 billion in tech-rela IPOs lined up for this year, already.

It will remain a tricky task to se such powerful and voracious maste Goldman's role in leading Vodafor hostile bid for Mannesmann led German company, an occasional clie to sue the firm last fall. While a Bri judge dismissed the case, it still stu "They took reputational risk," says rival executive. Mead says he spend quarter of his time trying to avoid c flicts. But with the global telecom a media business consolidating and c verging, his services remain much demand.

By Stanley Reed in Lond

Telecom Gold

YEAR	COMPANY	AMOUNT*	TYPE OF DEAL
1997	China Telecom	$4.0	IPO
1998	NTT DoCoMo	18.3	IPO
1999	Deutsche Telekom	13.6	Purchase of One-to-Or
1999	Vodafone	66.0	Acquisition of AirTouch
1999	Orange PLC	33.0	Sold to Mannesmann
2000	Vodafone AirTouch	183.0	Takeover of Germany's Mannesmann

*IN BILLIONS

DATA: BUSINESS WEEK; GOLDMAN, SACHS & CO.

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COMMENTARY

By David Fairlamb and Jack Ewing

AUF WIEDERSEHEN, GERMANY INC.

In the end, Mannesmann went quietly. No big bank used its financial clout to repel Vodafone AirTouch PLC's hostile takeover. No politician or labor boss intervened. Germany Inc., the protective net of cross-shareholdings and regulations that long shielded the country from the cruel tide of globalization, is dead. Vodafone Chief Executive Chris Gent merely laid flowers on its grave by taking over Mannesmann.

Now executives and investment bankers are dancing on it. Mannesmann's demise will spur an unprecedented merger-and-acquisition binge, they say. Any German company with a subpar share price or low profits is suddenly vulnerable. And it's not just companies from abroad that will do the acquiring. Many domestic companies should hit the takeover trail, too. If Germany makes the right moves, including speeding up deregulation, it could once again become the driving force of Europe. "Vodafone's victory is the catalyst that could transform the economy," says Rüdiger von Rosen, head of the German Share Institute in Frankfurt. "It's a watershed event."

EURO FACTOR. Until the beginning of last year, it would have been unthinkable for any bidder, let alone a foreign one, to snare Germany's largest company (in terms of stock-market capitalization) against the wishes of management. Politicians, union leaders, and shareholders would instinctively have rushed to the victim's defense. But the introduction of the single currency in January, 1999, coupled with rampant globalization and widespread privatization, has changed all that. "We ditched Rhineland capitalism the day we ditched the deutschemark," says the chief investment officer of a German institutional investor. "German companies now have to compete in Europe's single capital market."

As more Germans buy shares in Deutsche Telekom and other formerly state-owned companies, they are becoming more tolerant of tough business practices that produce higher returns. Far from backing Mannesmann CEO Klaus Esser, many of the company's German shareholders actually pressed him to strike a deal with Gent. Shareholder value is in.

AFTER THE DEAL

Organized labor also seems to accept the end of the old system. Mannesmann workers, despite initial protests, acquiesced in their company's acquisition. Worker representatives on the supervisory board backed agreement with Vodafone after assurances that the British company will continue Mannesmann's strategy. "The shareholders have decided, however we might feel about it," says Michael Mönks, a worker rep on the board.

That more or less sums up Social Democratic Chancellor Gerhard Schröder's thinking as well. He does not hide his dislike of hostile takeovers, but he steered well away from the Vodafone-Mannesmann battle once it began in earnest. "He accepted that the markets would decide the outcome," says a spokesman.

Despite his socialist rhetoric, Schröder seems to have emerged as a champion of restructuring. Next January, the government plans to sweep away the 50% capital-gains tax that banks and insurers currently pay when they sell holdings. That will encourage them to sell off their massive stakes in German industry—worth well over $100 billion—thus putting dozens of previously acquisition-proof outfits into play.

To be sure, there will be limits to the pace of restructuring. Although there were a record 200-plus initial public offerings in Frankfurt last year, relatively few German companies are listed. So large swathes of the economy will not be affected by takeovers. Although they rolled over in the Mannesmann case, the unions won't be so accommodating about mergers that involve job losses.

Still, there seems little doubt that Germany is heading for a huge corporate shakeup. If Germans can handle the instability and the government can push through some radical reforms, the payoff could be huge.

Fairlamb and Ewing cover German business and politics from Frankfurt.

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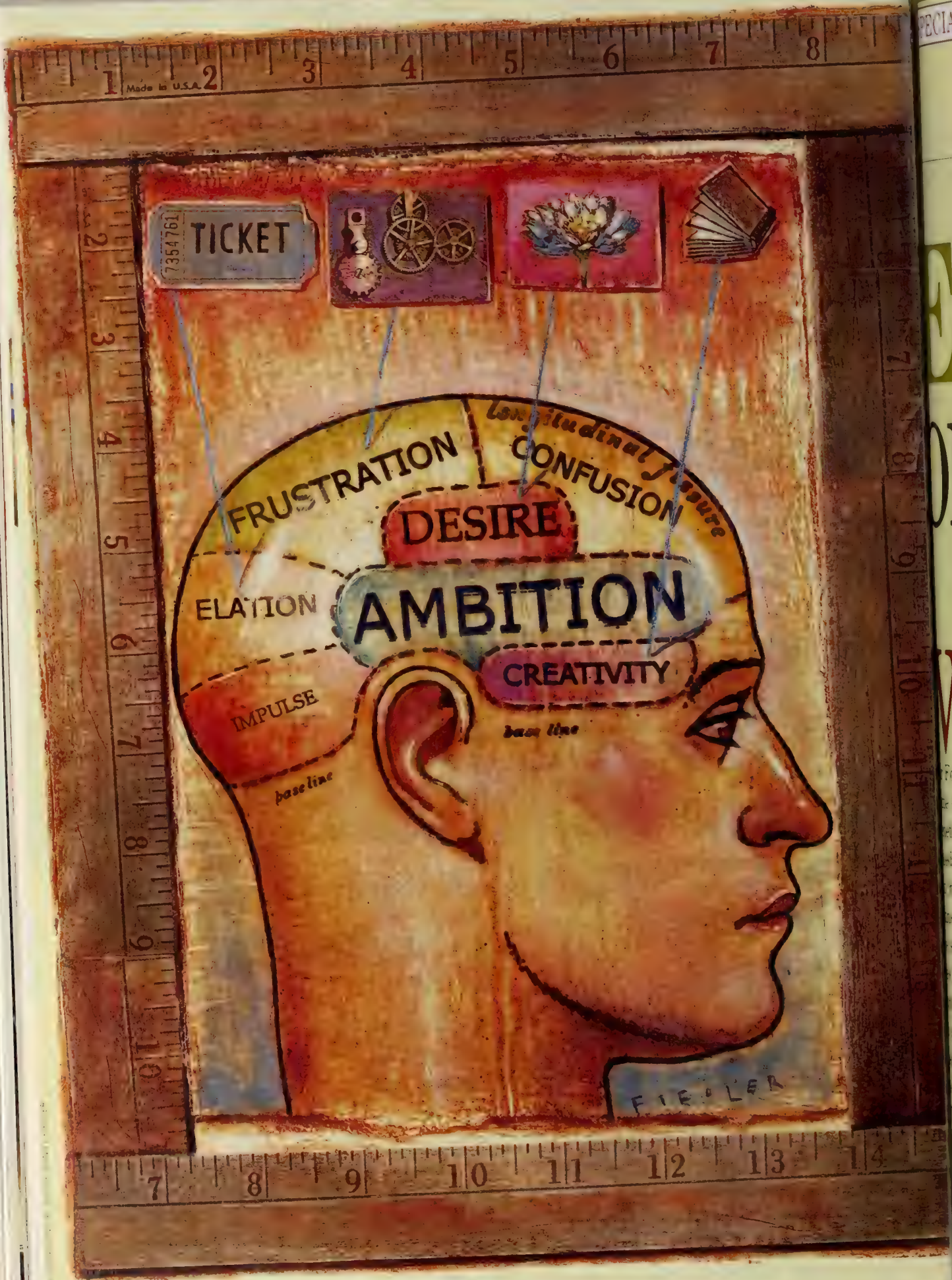
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AN EAGLE EYE ON CUSTOMERS

A vast array of Net software lets companies read the minds of their clientele–and win them over

When Mary Aehlich gave up her career as a weapons controller in an · Force AWACS spy plane to be- ne casino administrator at The netian resort in Las Vegas, she ed that she went from "com- boots and flight suits to se- ns and high heels." But now stay-at-home mom of two ba- s is again on the front lines, of sorts. As an asional at-home Web site tester, she's part of early warning system for e-tailers—helping m figure out what works and what doesn't in uncharted world of Web commerce.

ake Aehlich's December sortie onto the jew- y site Miadora.com. Following a script pre- ed by the market research software compa- Vividence Corp., she shopped for a xen icelet, a Jordan Schlanger necklace, and a round diamond. Although she enjoyed the site, it was difficult to locate somé items. She said as much in an online critique she typed as she worked her way through the exercise. Feedback like hers from 200 testers was priceless for David A. Lamond, Miadora.com's vice-president for business development. Within two days of getting Vividence's report, he ordered changes to make the site easier to navigate. "This is as close as you can get to reading the mind of your customer," he says.

Vividence's product is just one example of a vast array of new software products that are designed to help companies read customers' minds and win them over—whether in cyberspace or on Main Street. The latest advances in software technology make it possible for

The Davids and Goliaths of Customer Software Square Off

The Goliaths

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NET INCOME: $45 million, up 127%.

SIEBEL eBUSINESS

WHAT THEY SELL: Software for managing field sales; telesales and marketing departments in large corporations.

STRATEGY: To beef up offerings for Web site sales and service and to provide companies with a single view of their customers on computer screens no matter how they buy—on the Web, or off.

COMPETITIVE POSITION: The leader in the traditional corporate customer relationship management market, it's becoming a force to reckon with in e-business, too.

ORACLE CORP.

MARKET CAP: $170.3 billion.

REVENUES IN THE MOST RECENT QUARTER: $2.32 billion, up 13%. Customer relationship software sales totaled $49 million, up 300%.

NET INCOME: $384 million, up 40%.

ORACLE

WHAT THEY SELL: Products for customer relationship management and e-commerce are relatively recent add-ons for a company whose core products are databases.

STRATEGY: To offer large organizations one-stop-shopping for their key pieces of software that can be integrated with one another.

COMPETITIVE POSITION: Oracle's databases power the top 10 consumer e-commerce sites, so it's in a strong spot to hawk software for Web sales and online service.

NORTEL NETWORKS CORP.

MARKET CAP: $161.6 billion.

REVENUES IN THE MOST RECENT QUARTER: $6.99 billion, up 21%.

NET INCOME: $755 million, up 53%.

NORTEL

WHAT THEY SELL: Telecommunications gear, and, because of a pending $2.1 billion acquisition of Clarify, a suite of customer management software. Clarify revenues were $71.6 last quarter.

STRATEGY: To combine the Clarify products with its software for call-center routing.

COMPETITIVE POSITION: Clarify is the strongest of Siebel's traditional competitors. If the potential synergies with Nortel pay off, it could dominate the call-center software business—and be a strong contender in other markets.

The Davids ...

companies to amass detailed profiles of customers, offer them just the things they're likely to buy, reward them for loyalty, and quell their frustrations. And, thanks to the Web, companies can keep all of their information about customers in a single electronic storehouse, easily accessible through Web browsers for executives at headquarters, salespeople on the road, and service reps in remote call centers. It's all about delivering TLC—Internet style. "Everybody is scrambling to grab the customer and not let them go," says David Caruso, a vice-president at market researcher AMR Research.

It's a mad dash that's creating a vast new software category: call it customer management software. Included is the Old World of so-called customer relationship management software—giant packages such as Siebel Systems Inc.'s program that lets corporate sales forces track their customers and analyze markets. That's now merging with new programs for the Web that manage everything from online sales to customer service. The whole shebang is expected to grow from $4.45 billion last year to $21.8 billion in 2003, according to AMR—a growth rate nearly five times that of the overall software market.

CROSS-SELLING

Software helps companies pitch products to customers related to things they just bought

WANTED WIDGETS. Why are companies opening their wallets so fast? The technology promises to transform the way they do business. Gone are the days when they could afford to build products without knowing for sure if customers would snap them up. Now they can learn precisely what their customers want before they design a single widget. Manufacturers can even let buyers specify the key features they would like before a product is assembled. And by using technology to track their every encounter with a customer, companies can easily separate out the best from the bad—and focus their marketing muscle on customers who are likely to buy often and pay their bills on time.

The new software already is delivering cash rewards to its early adopters. For starters, it cuts costs: A self-service pack-

age tracking system for customers t IBM built for United Parcel Service saves the shipping company $450,00 day in customer service expenses. A this stuff boosts revenues, too: Thank call-center software from Clarify I Automatic Data Processing Inc. han 8,000 customer service reps detailed formation about its 80,000 pay clients—improving the customer ret tion rate by 5% and upping revenues $100 million last y Based on its surv of six industries, dersen Consulting timates that with a modest 10% provement in tomer managem operations, a $1 bil business can reap million to $50 milli year in pretax pro

With customers ing up to do busin hundreds of softw companies are b staking claims. So are well-establis players in customer softw arena, such as Sie with revenues of $ million and a market share of $3.7 billion market corporate sales marketing softwa But as big as it is its own market, Siebel has to watch for even brawnier competitors in new land grab: software giants SAP Oracle Corp. Even Nortel Netwo Corp., the maker of telecom gear, wa in on the action. It's about to clos $2.1 billion acquisition of Clarify, call-center software maker.

While the giants duke it out, h dreds of small fry are cooking up products for everything from perso izing online sales pitches to custo service software for the Web. So have solid traction, such as Vigne Corp. and BroadVision Inc., which each logging more than $40 millio revenues per quarter for Web site s software. Many are minuscule—such Salesforce.com in San Francisco, wh just launched its Web-only sales-m agement site (page 76). But even so of the little guys already loom large Wall Street. Kana Communications I a seller of e-mail systems for custo support, has watched its stock soar fr $45 a share at its initial public offe last September to about $240 toda

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The Davids

VIGNETTE CORP.

MARKET CAP: $11.14 billion.

REVENUES IN THE MOST RECENT QUARTER: $40.9 million, up 512%.

NET LOSS: $5.6 million compared to $9.2 million a year earlier.

VIGNETTE

WHAT THEY SELL: Software for managing all kinds of Web site information, from stock tickers to product catalogs. E-marketing will be available midyear.

STRATEGY: To broaden from its traditional information-management niche into personalizing e-commerce—studying what people look at on a site and pitching them products that fit their interests.

COMPETITIVE POSITION: The company established a rock-solid reputation by powering high-volume Web sites like CNET. Now it's becoming a major player in e-commerce—though BroadVision Corp. is still the segment leader.

KANA COMMUNICATIONS INC.

MARKET CAP: $6.94 billion.

REVENUES IN THE MOST RECENT QUARTER: $6.5 million, up 650%.

NET LOSS: $90.6 million, due to acquisition expenses.

Kana

WHAT THEY SELL: Software to manage e-mail-based customer service and marketing campaigns.

STRATEGY: To fill out its product offerings through stock-based acquisitions like its purchases last December of Net Dialog Inc. and Business Evolution Inc. Target: Customer analysis software for Web sites.

COMPETITIVE POSITION: Kana leads its segment thanks to dot-com accounts like eBay and Lycos. It needs to win in corporate markets to stop giants like Siebel from encroaching on its business.

E.PIPHANY INC.

MARKET CAP: $4.14 billion

REVENUES IN THE MOST RECENT QUARTER: $8.7 million, up 521%

NET LOSS: $6.3 million

E. E.PIPHANY

WHAT THEY SELL: Software for analyzing customer information and launching marketing campaigns on the Web.

STRATEGY: To create partnerships with e-commerce leaders like BroadVision and Art Technology Group—fitting in with their array of Web site sales software to offer corporations a full package of software.

COMPETITIVE POSITION: Ultimately, the kind of software it makes will be an essential part of every Web site, and most e-commerce software companies will offer it. E.piphany has to get big fa[illegible] out.

giving it a market cap of $6.9 billion.

Ultimately, expect only a handful of players to claim the lion's share of this market. Siebel and Oracle look like big winners. They already have relationships with thousands of large customers and offer a broad array of software packages. Up-and-comers such as Vignette, BroadVision, and Kana stand a good chance of succeeding, too. They lead in their segments and are rapidly broadening their product portfolios.

With hundreds of others vying for this new software prize, consolidation is a sure bet. Those that survive are apt to be the players that put together the most compelling soup-to-nuts packages. They'll either develop products themselves or buy up smaller competitors—often with stock. It's already happening. On Feb. 7, Kana announced a $4.2 billion purchase of Silknet Software Inc., a maker of self-help software for Web sites. "The companies with the biggest market caps will be the winners," predicts Kevin Harvey, a partner at Silicon Valley venture-capital firm Benchmark Capital.

Some large corporations are already demanding one-stop shopping for customer management software. Honeywell International, for instance, aims to revamp totally the way it does business. Rather than making products and then finding out later if customers will buy them, it's using a software package from Siebel Systems to anticipate more accurately what its customers will want. Honeywell's $5.2 billion air-transport business, which makes jet engines and avionics gear, uses Siebel to track all of its interactions with customers and publishes monthly analyses so executives can quickly spot problems and opportunities. One early result: It noticed that airlines were frustrated with managing parts inventories, so it's rolling out new services that will spare them that headache. "Our focus used to be from the inside out. Now it's the reverse," says division General Manager Lynn Brubaker.

The software giants have taken the lead in assembling packages capable of handling huge jobs such as Honeywell's. Siebel has spent the past two ye[illegible] adding call-center and Web comme[illegible] components to its sales-force mana[illegible]ment software. The newest pieces [illegible]livered last year include a package [illegible] setting up Web shops and an e-m[illegible] marketing product. The empire-bu[illegible]ing effort is paying off big time: Sie[illegible] just landed a deal worth tens of [illegible]lions of dollars to supply IBM with pr[illegible]tically its entire suite of products [illegible] 55,000 IBM sales and marketing empl[illegible]ees to use internally.

Oracle and SAP are going furth[illegible] They're packaging customer softw[illegible] with their suites for managing finan[illegible] employees, logistics, and manufacturi[illegible] Their pitch: While companies must [illegible]tach Siebel's suite to the rest of th[illegible] computing systems manually, Oracle's [illegible] SAP's pieces come ready-mixed.

It's not just established compan[illegible] that want the ki[illegible] of end-to-end pa[illegible]age that Oracle a[illegible] SAP offer. Many W[illegible] upstarts have simi[illegible] needs. Consid[illegible] Streamline.com [illegible] Westwood, Mas[illegible] which sells grocer[illegible] and household ite[illegible] online and delive[illegible] them in Boston a[illegible] Chicago. "We're [illegible]ally a logistics or[illegible]nization. We've g[illegible] warehouses a[illegible] trucks. We're focus[illegible] on operations," sa[illegible] John Cagno, vi[illegible] president for inf[illegible]mation technolo[illegible] That's why [illegible] bought a suite [illegible] software from S[illegible] that includes cu[illegible]tomer, finance, a[illegible] logistics software [illegible] linked togeth[illegible]

CUSTOMER ANALYSIS

At Honeywell, software anticipates what consumers will buy before the products are designed and manufactured

When the new system rolls out [illegible] March, Streamline.com's customers w[illegible] be able to chose from its actual inve[illegible]tory, so there's no risk of their picki[illegible] out-of-stock items and being disa[illegible]pointed with substitutions. The go[illegible] improve customer loyalty and cut do[illegible] on service calls.

Now, companies want a way to vi[illegible] all customer information in one pla[illegible] Often companies keep multiple datab[illegible]es for each business and each way [illegible] reaching customers—and those repo[illegible]tories aren't easily synced up. This n[illegible] generation of software offers a way [illegible] gather information collected by comp[illegible]

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nies' Web sites, direct-mail operations, customer service, retail stores, and field sales. H&R Block Inc., for instance, is using software from Clarify to combine and coordinate the customer records at its tax offices, discount brokerage, Web site, and customer-service center. Armed with that central storehouse of information, sales people in the stock-trading business, for instance, can look at detailed descriptions of tax customers and size up which of them would be good prospects.

Not every company wants software that will handle the whole enchilada of customer needs. Many—especially dot-coms—shop for single pieces of software that solve problems or boost revenues in a matter of weeks. They shun complex packages that can take months or even years to install. Vignette, for instance, has grown fast because its software allows Web sites to generate pages on the fly that are custom-made for individuals. Web site operators can analyze customers' online behavior and pitch them products that are likely to pique their interest. And the software is relatively easy to get going. Thanks in part to Vignette, Iwon.com, the four-month-old Web sweepstakes portal, was able to launch in just 4½ months.

CUSTOMER SERVICE

ADP's call-center system improved customer retention by 5%

The more narrowly focused the software, the easier it is for companies to see results. Using Silknet's new virtual sales assistant, for instance, online computer retailer cozone.com created "Jill—the Notebook Advisor." It's a piece of software that walks customers through a series of questions about their lifestyles and what they're looking for in a computer—then makes recommendations. Cozone.com gathers a vast amount of data from cybershoppers and can use it later to target them with e-mail promotions. But mostly, "Jill" is about making customers feel good about their experience so they come back for more.

Often, customers want software to bridge the Web and other businesses. Williams-Sonoma Inc. for instance, uses e-mail software from Ka to cross-promote its Web site, ma order businesses, and Williams-Son ma and Pottery Barn retail store Patrick Connolly, general manager the company's direct-marketing bu nesses, says he wants to avoid simp transferring sales from stores to t Web site. He can use e-mail address collected at stores and on Web sit to send targeted promotions. recently sent e-mail to shoppers the company's outlet stores inviti them to come back for 15% discoun The response rate was 12%—far abo the typical 1% response to e-m solicitations.

BIGGER FASTER. In spite of victori like these, the upstarts can see t writing on the wall. They've got broaden their portfolios of products they hope to cement relationships wi customers—and compete with the bi Even before the Silknet deal, Kana b gan taking advantage of its outsiz market cap by buying NetDialog, Web self-service software; Busine Evolution Inc., for real-time e-mail a chat; and Connectify Inc., for e-m marketing. "We have to get big f so when Siebel does come, we're rea for them," says Kana CEO Micha McCloskey.

What could derail the industry ants? The Net is a wild card. All the major players have converted th applications so they can be access via Web browsers. But the newer so ware companies that built their pro

A GUIDE TO CUSTOMER MANAGEMENT SOFTWARE

SALES-FORCE AUTOMATION Field sales representatives can track accounts and prospects—plus check goals and inventories—from the office PC or a notebook computer on the road. At the same time, their bosses can keep tabs on their performance. New Net-only versions allow individuals and small teams to handle accounts from Web sites for $50 a month or less.

CALL-CENTER AUTOMATION Creates customer profiles and provides scripts to help service representatives solve customers' problems or suggest new purchases. The latest versions allow companies to coordinate phone calls and messages on Web sites—plus reps can carry on phone conversations with customers while seeing the Web pages the customers are looking at.

MARKETING AUTOMATION Helps marketers analyze customer purchasing histories and demographics and design targeted marketing campaigns—then measures results.

WEB SALES AND PERSONALIZATION Basic e-commerce software manages product catalogs, shopping carts, and credit-card purchases. New features allow repeat customers to keep shopping lists on the Web and quickly resubmit orders. Web shops can create special, on-the-fly prices for specific customers.

WEB CONFIGURATOR Walks consumers through the process of ordering complex custom-assembled products like computers, and, in the future, cars. It's even more important for business-to-business transactions. A retailer that brands refrigerators or stoves made by others can specify the features they want.

WEB SERVICE Self-service packages and e-mail limit the need for live customer service representatives. New artificial intelligence features suggest solutions for problems to customers or service reps.

WEB ANALYSIS AND MARKETING Warehouses of digital data allow Web sites to track the online activities of individual shoppers and offer them merchandise they're likely to buy based on past behavior. It also enables targeted marketing of individuals via e-mail

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ucts from the ground up with Web delivery in mind can offer faster service over the Internet. That could become crucial if corporations and dot-coms opt for the convenience of having applications delivered over the Net by hosting companies. Siebel Systems Chairman Thomas Siebel is convinced that will be only a small part of the market. "None of my customers are asking for it," because they want to control their own technology, he says dismissively.

He better not get too smug. The competitive landscape could change radically in the next couple of years. Siebel charges premium prices for its software—often hundreds of thousands of dollars per sale. Already, competitors such as SalesLogix Corp., a five-year-old company in Phoenix, offer many of the same capabilities for much less. [Webb Corp., the Phoenix housing veloper, bought SalesLogix software coordinate the activities of 700 sal people and paid just $600 for each us vs. the $2,000 that Siebel would ha charged. "The big companies haven't belled yet, but I believe they will," sa SalesLogix CEO Patrick Sullivan.

Siebel and the other high-pric

HOW MARRIOTT NEVER FORGETS A GUEST

When retiree Ben B. Ussery Jr. goes on vacation, he typically spends hours beforehand nailing down golf dates, scouting shops for his wife, and making restaurant reservations. But last year, when the Usserys and another Richmond (Va.) couple chose to spend a week at Marriott's Desert Springs resort in Palm Desert, Calif., he let the hotel do the legwork. Weeks in advance, Marriott planning coordinator Jennifer Rodas called Ussery to ask what he wanted to do. When all was set, she faxed him an itinerary. She had even ordered flowers for his wife. "Marriott made it a real smooth experience," says Ussery. "I'm ready to go back."

What makes such velvet-glove treatment possible is Marriott International Inc.'s use of customer management software from Siebel Systems Inc. The hotel chain, based in Bethesda, Md., is counting on such technology to gain an edge with guests, event planners, and hotel owners. The software lets Marriott pull together information about its customers from different departments, so that its reps can anticipate and respond more quickly to their needs. It starts with reservations. Says Chairman J.W. Marriott Jr.: "It's a big competitive advantage to be able to greet a customer with: 'Mr. Jones, welcome back to Marriott. We know you like a king-size bed. We know you need a rental car.'"

Marriott, America's No. 1 hotel chain, is the industry leader in using technology to pamper customers. The company, which manages 1,850 hotels and resorts worldwide, began installing Siebel software in late 1998 and is spending just under $10 million for the initial pieces. A few other hotel chains are dabbling in customer-info systems, but Marriott is ahead of the pack, says analyst Bryan A. Maher of Credit Lyonnais Securities. "It's a huge advantage," he says.

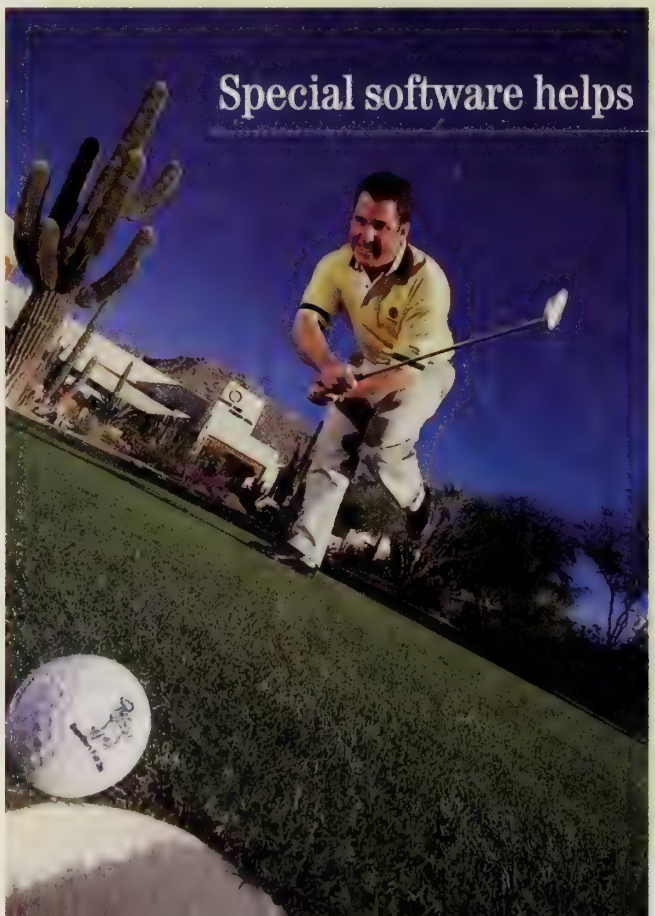
The biggest boost from the Siebel software is in the hotel chain's sales operations. Marriott is transforming its sales teams from order-takers for specific hotels to aggressive marketers of all Marriott properties. A salesperson in Dallas—who understands both the needs of his local customers and the chain's world inventory of hotel rooms and other facilities—can now pitch and book orders for hotels in Hawaii or China.

NO HASSLES. Early results are promising. In 1998, the sales-force software helped Marriott generate an additional $55 million in cross-chain sales. Anecdotal evidence also suggests there has been a jump in bookings from event planners, who find it easier to give business to Marriott, which has their needs on file, than put it out for bid.

Eliminating hassles for guests is the appeal of Marriott's free personal-planning service, too. It's now available at seven resorts, but Marriott aims to extend it to all 32 resorts by 2001. The software tracks guest preferences, so personal planners can anticipate amenities that repeat guests may want. "Our spa is very popular," says Doug Mings, personal planning supervisor at Marriott's deluxe Camelback Inn in Scottsdale, Ariz. "If you don't plan ahead, sometimes you don't get in."

The service also gives Marriott reps an opening to pitch hot-air balloon rides and other fee-generating activities. Happy customers, fatter sales: With that kind of advantage, no wonder other hotel chains, such as Hilton Hotels Corp., are starting to follow Marriott's technology lead.

By Amy Borrus in Washington



Special software helps keep track of what each visitor likes

THE CAMELBACK RESORT SETS UP GOLF DATES FOR GUESTS

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big shots won't have a lock on the ability to give corporations a comprehensive view of their customers, either. The California State Auto Assn. is doing that with a comparatively cheap $1 million purchase from E.piphany Inc., a maker of market-analysis software in San Mateo, Calif. CSAA uses the upstart's software to extract customer information from separate databases controlled by its travel agency, emergency roadside service, insurance business, and Web site. That gives it the capacity to size up customers and give each one a "lifetime value score"—singling out the best customers for special treatment. "It's been a revelation," says Alexandra Morehouse, the association's corporate marketing officer.

Make that an epiphany. If more pe ple have stirring experiences like Mor house, there could be a revolution the works for the customer-manag ment software business.

By Steve Hamm in New York, wi Robert D. Hof in San Mateo, Calif.

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SALESFORCE.COM: AN ANT AT THE PICNIC

There was a time when Marc K. Benioff could call Thomas M. Siebel and set up lunch. After all, the pair cut their teeth together during the early go-go days at software giant Oracle Corp. These days, though, Siebel won't return Benioff's calls. It may have something to do with the mission of Benioff's San Francisco startup, Salesforce.com Inc., which was officially launched on Feb. 7. "Our objective is to put Siebel Systems out of business," Benioff says flatly.

Never mind that Benioff, 35, was an initial backer of Siebel Systems Inc., the king of software for making salespeople more productive, and that he has pocketed more than $20 million from that 1993 investment. He revels in the thought that Salesforce.com can use the Web to undermine the classic business model that generated $790 million in sales for Siebel last year. Benioff, chairman of Salesforce.com, expects the Internet to change the way salespeople track customers. Right now, his Web site does only a fraction of what Siebel's software can do. But in the future, he believes, instead of buying expensive packages of software, even large companies will pay monthly fees to get what they need from Web sites like his.

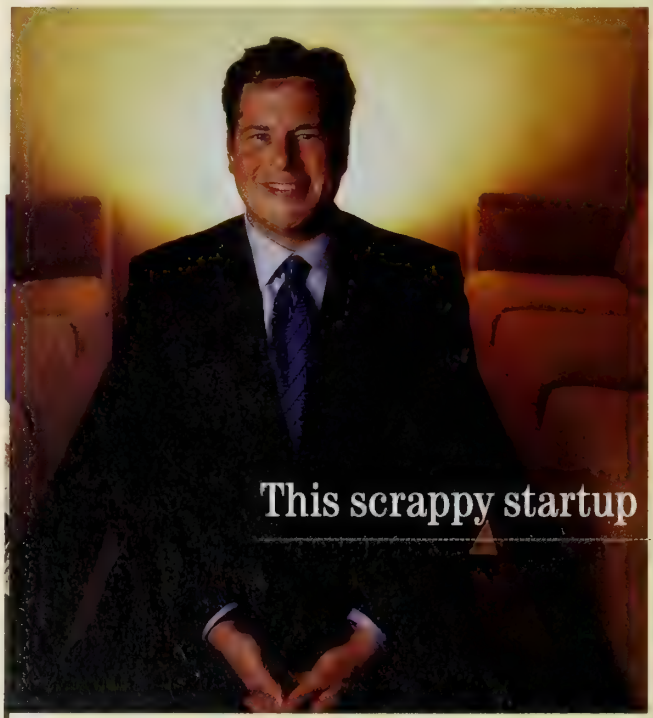
With Salesforce.com, Benioff has made a first stab at fulfilling that vision. It's a handy tool for individual salespeople or small groups. For just $50 a month, users click on tabs to move quickly from their contact list to account information to sales leads.

The Web site's simplicity is appealing to customers such as Robert G. Muscat. As head of business development for W. L. Gore & Associates' Industrial Dry Filtration unit, Muscat initially considered Siebel software to link his 15 sales reps. But it would have cost him close to $60,000 to buy and install. "You're talking some big bucks here," Muscat says.

At this point, Salesforce.com is nothing more than an ant at Siebel's picnic. With 150 customers to Siebel's 1,000, it can hardly be considered a threat yet. "Web applications are a compelling story for small startups. But for big companies like General Motors and Microsoft—no way," says David Schmaier, Siebel's senior vice-president for products. To be sure, Salesforce.com isn't for big corporate customers that want all of Siebel's market-analysis features.

SHARED NICHE. Even for small sales operations, Salesforce.com has its shortcomings. Its greatest advantage —being a Web site—could also be its greatest drawback. For sales reps who travel, finding Web connections can be even more difficult than finding a good cup of coffee. "It's not an acceptable solution," Forrester Research Inc. analyst Bob Chatham says of Salesforce.com. He thinks this technology makes sense mainly for small stationary sales forces.

Salesforce.com doesn't have this niche to itself, either. Upshot.com Inc. and SalesLogix Corp. have developed sales-management Web sites. And Siebel is getting into the action too—recently spinning off its Sales.com Web site, which offers some of the features of its core sales-management software.



This scrappy startup has bagged 150 customers so far

BENIOFF FIGURES A WEB SITE IS WHAT SALESPEOPLE NEED

But Salesforce.com's backers don't seem worried. The company is about to close another round of financing that will bring its total funding to $52 million and value it at $350 million. And Benioff expects to go public this year. If that happens, his $20 million Siebel windfall could seem like pocket change.

By Jay Greene in San Francisco

BusinessWeek ONLINE

For a profile of Marc Benioff, see ebiz.businessweek.com as a Mover & Shaker on Feb. 16.

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THE INTERNET

SUDDENLY, AMAZON'S BOOKS LOOK BETTER

The e-tailer is raking in a bundle–from other merchants

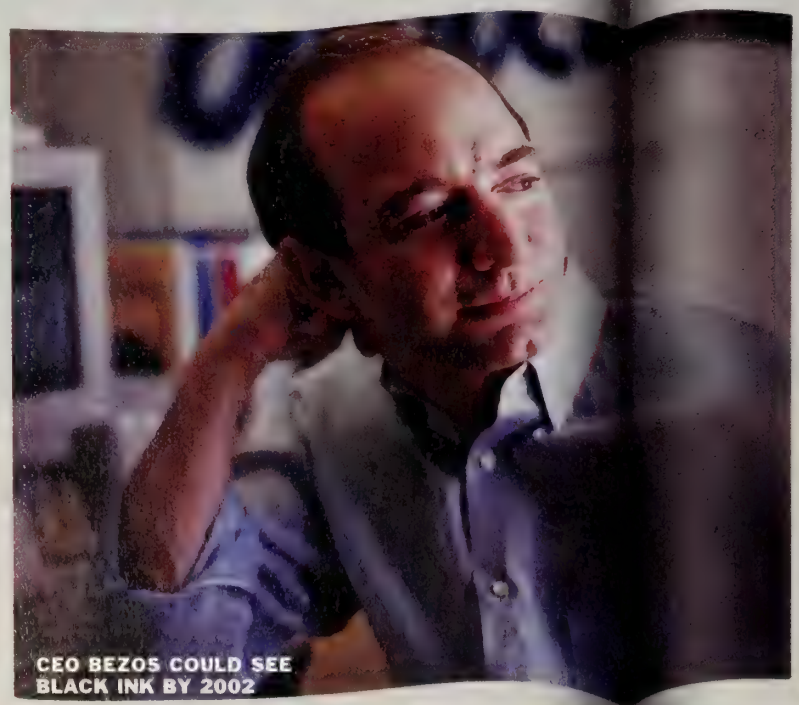
No sooner had Amazon.com Inc. reported its fourth-quarter earnings on Feb. 2 than the squabbles erupted on online-investor message boards. "The Amazon numbers were great!" gushed William Harmond, a trader on the Silicon Investor site. Retorted another, identified as Lucretius Taurus: "I'll be shocked if this piggy is even around in a couple years." Even the pros are betwixt and between. "I'm still a believer in Amazon in the long term," says David D. Alger, chief executive of money manager Fred Alger Management Inc.—yet he recently dumped most of the Amazon shares in his Enterprise Internet Fund.

It's easy to understand why there's so much confusion about the pioneer e-tailer's prospects. Each year, its sales have rocketed far beyond expectations. But so have losses, now at nearly $900 million and counting. As CEO Jeffrey P. Bezos has moved Amazon far beyond books to music, Pokémon cards, drill presses—and, ultimately, anything people want to buy—doubts have intensified about whether it will ever turn a profit. Those doubts were fueled on Jan. 28 when Amazon fired 150 employees, or 2% of its staff. Now its stock languishes at 83, about 27% below its Dec. 9 high of 113. Says J.P. Morgan analyst Thomas H. Wyman: "There's a fear on Wall Street that maybe e-tail business models aren't working."

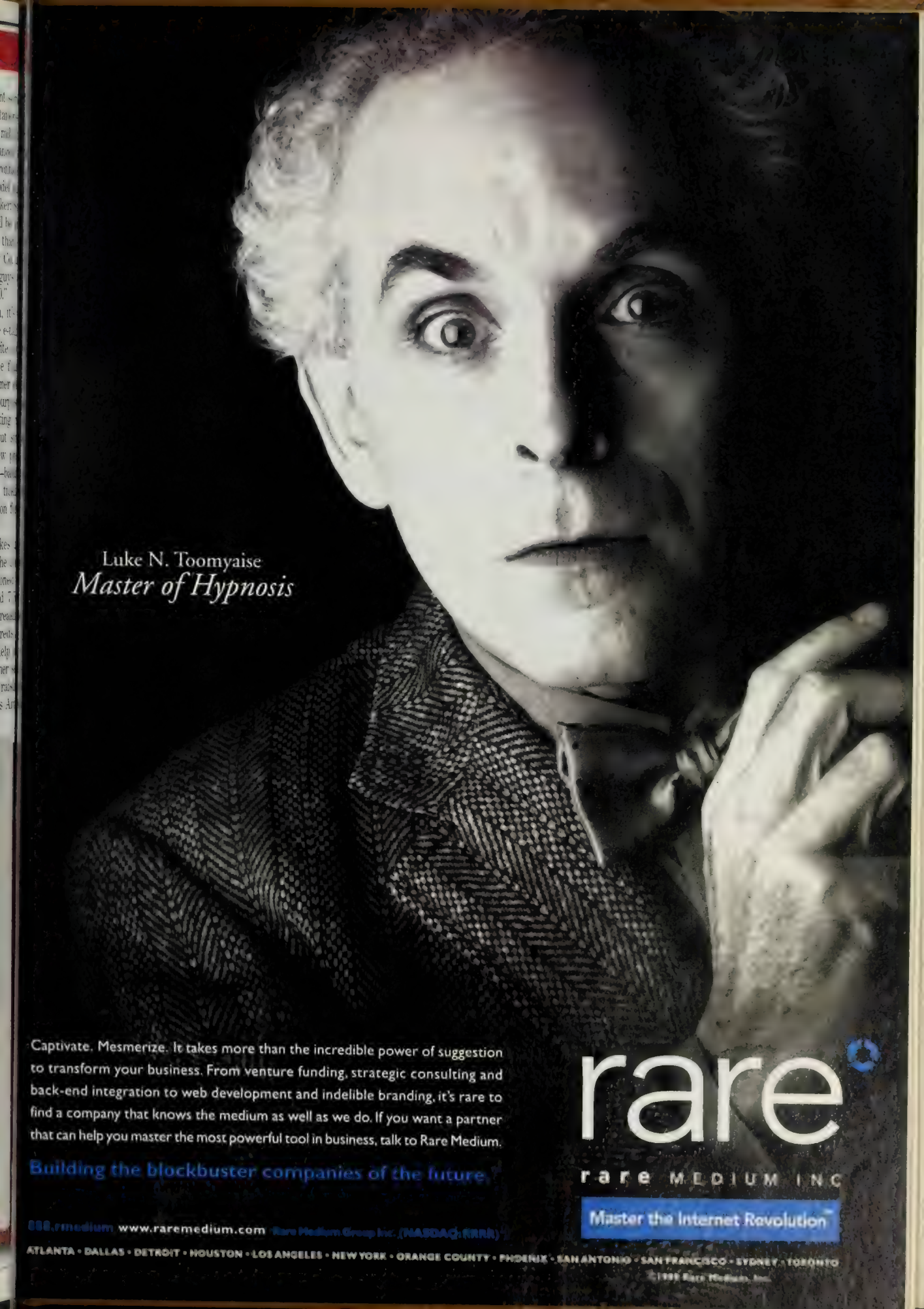
But suddenly, that fear is starting to wane. Once again, Amazon's model is looking sweet—and showing a path to that most elusive of dot-commodities, profits. The turnaround started on Jan. 21, when Amazon announced the latest in a series of deals to rent some its Web-site space to other e-tailers— return for a stunning $606.5 million cash. Then, on Feb. 2, it announced t its original books business is profitabl a sign that its core e-tailing model mi just have legs after all. The kicker: So analysts now think Amazon will be pr itable in 2002, a year earlier than pected. Says Goldman, Sachs & Co. a lyst Anthony Noto: "These guys really poised to take off in 2000."

Positive signs aside, though, it's from certain that Amazon's core e-tail business is viable. It had to write do $39 million in inventory in the fou quarter, mostly toys and consumer el tronics—which Amazon said it purpos overstocked to avoid disappointing c tomers during the holidays. But si Bezos plans to keep adding new pr ucts—more this year than ever—bala ing demand and inventory is a tickl problem that may plague Amazon fo long time to come.

SNAFU SPECTER. And the stakes a higher than ever. Insiders say the co pany, even though it has ballooned $1.6 billion in annual sales and 7,5 employees, is stretched to the breaki point. Over the holidays, hundreds administrative workers had to help in distribution centers and customer s vice to keep up with demand, raisi the specter of execution snafus as Am



CEO BEZOS COULD SEE BLACK INK BY 2002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zon keeps growing. And now that Bezos has stuck his neck out by predicting better results to come, there's no room to disappoint. If he misses the mark, the stock may crater, reducing his ability to expand. Bezos concedes Amazon has taxed some investors' patience but insists the long wait was worth it. "This year, we expect our model to visibly demonstrate its inherent operating leverage and its long-term potential."

Indeed, Amazon may finally have hit a historic milestone in e-commerce: critical mass. With 17 million customers, Amazon has an asset unmatched in all of e-commerce—one that may finally be primed to deliver on the Web pioneer's promise. "We have reached a tipping point as a business," Bezos says. "When you reach a certain critical mass of customers, you very quickly have a long line of people who want to associate with you." In other words, people who give you boatloads of money for nothing more than a few square centimeters of your Web page.

Once again, Amazon's hyperkinetic leader has changed the rules of the game almost overnight. First, he showed the world he could sell stuff online to millions of people worldwide with almost none of the costly stores and inventory of traditional retailers. But he quickly recognized that as he added more products and customers, the virtual model would not work. To offer not just the biggest selection but the nearly instant gratification customers demanded, he needed to stock and ship his own inventory. So he spent an unprecedented $300 million to build five new distribution centers last year, and hired hundreds of customer-service operators.

Investors blanched, but Amazon aced the holidays: More than 99% of Amazon's holiday deliveries arrived on time. That earned the unswerving loyalty of Amazon's customers, whose repeat purchases now make up 73% of its sales. "Amazon's biggest asset is its customer base," says Alex Nesbitt, CEO of Sameday.com, a Los Angeles e-commerce distribution company. "Customers who are satisfied and keep coming back are very valuable."

That's the key to Bezos' latest shift. He's flipping e-tailing itself on its head—not just selling more and more products to his customers, but selling the attention of those customers to other e-tailers. It's a page from the playbook of Internet portals such as America Online Inc. and Yahoo! Inc.—with one big difference. Amazon's customers aren't just surfers and chatters. They're people primed to buy and experienced in how to do it online. That's why the deals are especially attractive to other e-tailers, such as Drugstore.com and Visa issuer NextCa Inc. "We're going to the sweet spot online shoppers," says Shaun Hollida CEO of Living.com, which will open store within Amazon in return for payi $145 million over five years.

BUY, BUY. Already, this rich new lode which carries 85% gross profit margi more than six times Amazon's curre level—has helped turn around many a alysts who had been wary of the stoc Several have upgraded their ratings r cently so that now, 16 analysts have strong or weak buy and 10 have a hol Some have even moved up by a full ye their timetable for Amazon to turn profit, to 2002. Goldman analyst No sees the six deals so far cutting operati losses by $110 million in operating i come this year, or about 25%. And mo are on the way. "We've had hundreds companies that have approached us work with us in this way," says Am zon President Joseph Galli. "We're th power that takes the customer and d livers him to the suppliers."

Becoming a landlord isn't the only ne role Amazon can play. Bezos reckons h has built an e-commerce "platform"— made up of its customers, its brand, tech nology, e-commerce expertise, and dis tribution capabilities—on which it's fa easier and cheaper to build new bus nesses. Boasts Bezos: "The platform a lows us to launch new e-commerce bus nesses faster, with a higher quality c customer experience, a lower increment cost, a higher chance of success, and faster path to scale and profitability tha any other company."

In short: Amazon may be poised t add a raft of other revenue streams if so chooses. It could accept tradition advertising, a $4.7 billion market. I could offer membership clubs, givin those who pay a fee access to more in depth reviews or discounts. It could o

AMAZON'S PLAN TO STEM LOSSES

After six years of escalating losses, Amazon.com is finally focusing on that most elusive of dot-commodities: profits. Here's how it could get out of the red:

- Improve operational efficiency: On Jan. 28, Amazon laid off 2% of its staff whose job demands outpaced their skills. By streamlining processes in its distribution centers, Amazon expects to cut operational losses from 20% of sales now to 5% or less by yearend.
- Continue to expand product offerings to spur customers to spend more: The amount each of its customers spends is expected to rise from $116 today to $150 in 2002.
- Keep the cost of acquiring customers down: With its brand among the most recognized on the Web, Amazon will lessen its advertising and marketing spending from 25% of sales in 1999 to 13% of sales in 2002. As a result, its cost of acquiring each customer is expected to fall from an industry-leading $19, to $16 in 2002.
- Charge other e-tailers for exposure on its site: Amazon has signed six deals since last November that will net a total of $606.5 million at profit margins of 80% or more.
- Consider new revenue streams: It could focus on advertising revenue, providing Internet service for a monthly fee, offering memberships that include extra services, and providing logistics services to other e-tailers.

DATA: AMAZON.COM, GOLDMAN, SACHS & CO., BW

ON TIME: *Amazon wins points for reliable delivery*

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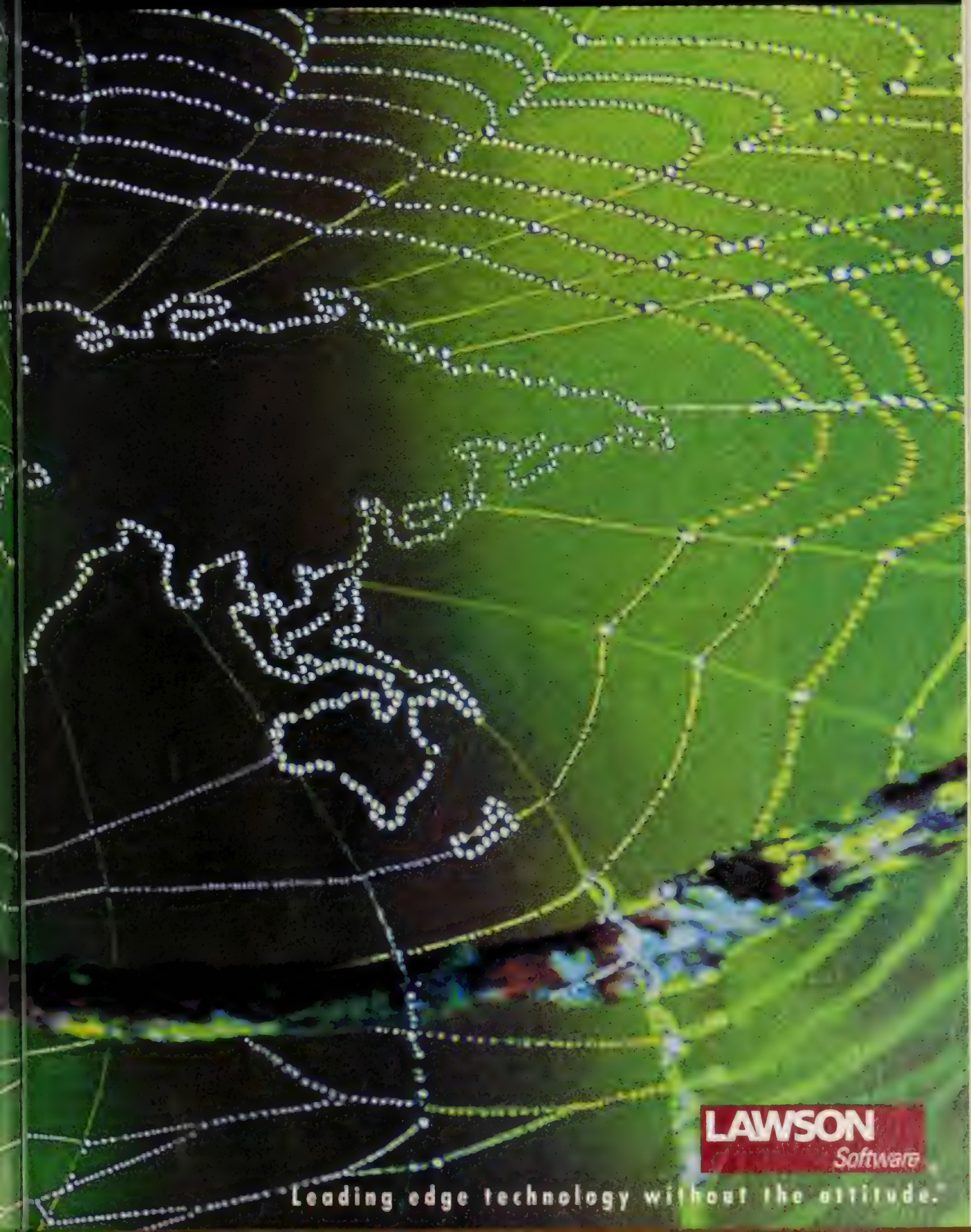


fer Internet service subsidized by advertising—as a new rival e-tailer, the Kmart Corp.-backed Bluelight.com, just started doing. Amazon could even offer distribution services to other e-tailers. Says Jeffrey A. Wilke, Amazon's vice-president for operations: "I want to have people lining up out the door begging, begging, begging us to fulfill their operations." Bezos says he has no immediate plans for such moves, but he also doesn't rule anything out.

Despite these new and potential riches, e-tailing will continue to comprise the bulk of Amazon's business. But that's a business that depends on execution more than vision—and Amazon's executives and employees have a lot to learn about retailing basics like balancing demand and inventories. Some skeptics say Amazon was forced to become a landlord because the underlying model doesn't work. "They had to give merchandise away in order to get customers," says Prudential Securities analyst Mark Rowen. "It's not clear if costs will come down or they'll be able to raise prices."

PINK SLIPS. Indeed, Amazon's profit picture in the fourth quarter looked grim. It lost $184.9 million, its biggest quarterly loss ever. Gross margins fell by more than a third, to 13%, thanks largely to the inventory write-down. As Amazon continues to expand, that could remain a chronic problem. "They have a lot of room for improvement," says Robert A. Bowman, CEO of online computer seller Outpost.com.

That's where the layoffs came in. The need to tighten up operations—not a drive to cut costs, according to Amazon insiders—led to the recent purge. Those fired were largely veteran employees whose jobs outgrew their skills, say insiders, who peg the layoffs to more rigorous management instituted by two managers hired last year: former Black & Decker exec Galli and Chief Financial Officer Warren C. Jenson from Delta Air Lines. While the layoffs pained Amazonians, investors applauded. "It was a very healthy sign," says Andrew S. Cupps, portfolio manager with mutual fund firm Strong Capital Management Inc.

It's up to Wilke, who oversaw AlliedSignal's manufacturing quality drive, to polish up the back end. He's deep into analyzing each step of the fulfillment process, from delivery by suppliers to shipping the product out the door. He hopes to persuade suppliers to cut unnecessary steps—such as wrapping toys in packaging geared to physical store needs. If such moves can reduce the time it takes to receive a product from a supplier to perhaps a day, Wilke says, then inventory falls to almost zero—for a huge jump in efficiency. "We should start to see gains within six months," he says.

That's one reason the fourth quarter may have been the low-water mark for Amazon's finances. Another plus: The biggest capital costs are over for now. The distribution centers, which can handle up to $10 billion worth of annual sales, are all built. Actually, the costs never were that much relative to traditional retailers, whose biggest expenses by far are building and staffing stores. Amazon's fixed assets, such as warehouses, for instance, on average produce double the sales of Wal-Mart Stores Inc. and Barnes & Noble stores.

Now that the warehouses are built, some analysts see the attractive cash flow of Amazon's business model becoming more obvious. But even with the added inventory it now carries, on average, it gets paid about a month before it must pay suppliers—because it charges credit cards as soon as buyers click but doesn't have to pay suppliers until up to 45 days later. That's one reason that the underlying business, before equity investments and capital costs, generated $32 million in cash in the fourth quarter.

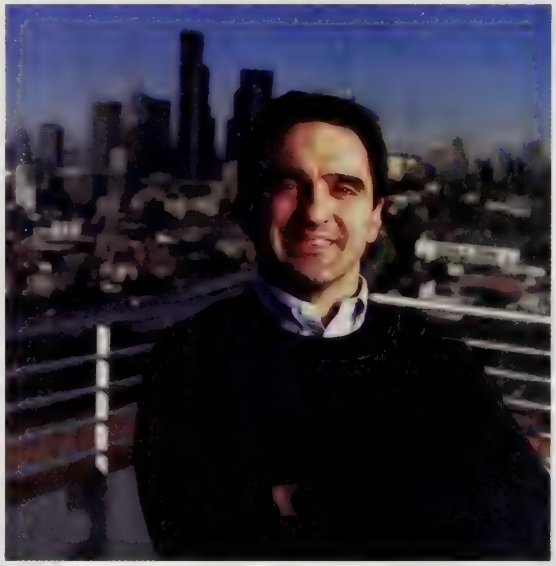
Marketing efficiencies also are beginning to kick in as Amazon's bra recognition and customer base gro Some 118 million U.S. adults reco nize its name, more than any other commerce company. And the more cu tomers Amazon serves without a hitc generating chummy word-of-mouth, t less it has to spend to get more.

As a result, Amazon's marketing co to acquire a customer is only $19, le than any other e-tailer. As Amazon's sal grow from $1.6 billion in 1999 to an e pected $2.8 billion this year a $6 billion in 2002, marketing costs will f from 25% of sales now to 13% in 20 according to Goldman Sachs. At t same time, as Amazon adds mo products, each customer is starting buy more—from $106 annually 1998 to $116 in 1999 and, by Not estimate, $150 by 2002.

With traditional retailers fro Barnes & Noble to Wal-Mart breathing down their neck, Amaz will have to keep those trends hea ing in the right direction. Brick-an mortar retailers can apply their fo midable brands and the ability offer pickups and returns at store By using the Web as a broadca channel for stores, vows Barnesan noble.com Chairman Steven Riggi "we are going to create a netwo of tens of millions of customers."

But with Amazon asserting i newfound power, traditional reta ers' gains may come more at th expense of other e-tailers. Amazon h bought nine companies, from catalog Tool Crib of the North to technolog providers such as shopping softwa maker Junglee Corp., and taken stak in 10 others, including category leade such as Drugstore.com and NextCar With its $28 billion market capitaliz tion and $706 million in cash and shor term investments, it can afford to kee plucking off rivals—or playing kin maker with partnership deals. "Th pure-play e-tailers are going to b forced to reinvent themselves," sa Mark H. Goldstein, CEO of Blu Light.com. But they had better hur before Amazon once again reinven itself.

By Robert D. Hof in San Mate Calif., with Heather Green and Dia Brady in New York



VIRTUAL ONE-STOP SHOPPING: "We're the power that takes the customer and delivers him to the suppliers" — JOE GALLI, PRESIDENT

A TOSHIBA SERIES ON POWERING THE MOBILE ECONOMY

he mobile century:

work is what we do, not where we do it

JOE FORMICHELLI ON WORKING ON YOUR OWN TERMS

Joseph C. Formichelli
Executive Vice-President
Toshiba America
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Joseph C. Formichelli, Executive Vice President of Toshiba America Information Systems, the world's leading portable computer maker, is a new breed of executive. When asked where his office is located, he does not respond with the address in Irvine, Calif., that is listed on his business card. Instead, he answers, "My place of work is simply where I am."

His work style is not an aberration. Among Corporate America's management ranks, mobility is now the norm. Kinetic professionals spend a sizable percentage of their time shuttling among hotel rooms, client sites, and global offices, connecting to the rest of the world primarily through their portable computers. Their only constants: a portable and a telephone.

Joe Formichelli, for one, is unfazed by the constant change of scenery. In fact, he relishes the freedom it gives him. "Mobility," he explains, "allows me to work, more than ever, on my own terms."

RETHINKING COMPUTING STRATEGIES

The growing proliferation of mobile professionals like Toshiba's Formichelli is causing companies worldwide to rethink their computing strategies—sometimes from the ground up.

"Portable computers and mobility-friendly IT strategies used to be a convenience," observes Formichelli. "Now, they're a necessity. Because if you can't connect, you can't work at the speed of business."

> *"Portable computers and mobility-friendly IT strategies used to be a convenience, Now, they're a necessity. Because if you can't connect, you can't work at the speed of business."*

Increasingly, employees themselves are choosing mobility because it allows them to work on their own terms. For example, in the congested Silicon Valley, with its notoriously packed freeways, top-tier engineers often insist on working offsite rather than enduring daily two-hour commutes, connecting to their colleagues through high-speed modems and virtual private networks.

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the mobile century: work is what we do, not where we do it

a talk with Toshiba's Joe Formichelli; continued

"Managers tell me that their mobile engineers are extremely productive," says Formichelli. "And what's more, they're more satisfied on the job and so are less likely to switch employers"—a big plus in the Valley's intensely competitive computer sector.

WORK WHERE IT MAKES SENSE

"The result of all this," notes Formichelli, "is that the 9-to-5 cubicle farms of Dilbertville are dying. Employees, with a growing number of options, are demanding the freedom that mobility affords. And employers are quickly coming to realize that work is 'what you do,' not 'where you do it.'"

Statistics bear him out. Today, according to a recent survey by Andersen Consulting, just three percent of executives view their companies as virtual. But fully 40 percent expect that their companies will become largely virtual organizations within the next decade. It's an evolution that Formichelli calls 'work where it makes sense."

"The participants in tomorrow's virtual organizations—employees, managers, customers, and partners—will conduct business as easily in a virtual office that travels with them from home to hotel to customer site," says the Toshiba executive, "as they do today in a steel-and-siding high rise."

BALANCING WORK AND LIFE

All of this means time for family, community, and personal growth — the long-sought "balance" in life that many employees have struggled for years to achieve. Formichelli suggests ways in which mobile computing can help to foster this balance:

- Answering an e-mail or downloading a work file can be done just as easily poolside or aprés ski as in your office. Employees are more in control of their lives despite the demands of a 24/7 world.
- Mid-day can be family time. Long commutes make it difficult for employees to come home during the day for special events, like school plays or sports. With mobile computing, employees can be just as effective spending an occasional morning at home.
- Work and weekends can co-exist. With mobility, an few hours' work does not have to mean spending an entire Saturday at the office.

The bottom line: family, personal, and community time will become as valued as time spent on the job – elevating personal job satisfaction and making it possible for more employees to work on their own terms.

NEXT: LOOK FOR THE TOSHIBA SERIES IN THE MARCH 6, 2000 ISSUE

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ITED BY ELLEN LICKING

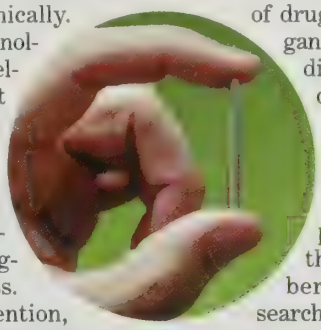
FEW GOOD ALS HAUL DATA OM THE DEEP

EANOGRAPHERS HAVE NEW ruits to help measure tem- ature in deep ocean wa- s: northern elephant seals. ery year these seals travel usands of miles on forag- ; trips that last up to nine nths. Because the seals itinually dive for food, as ep as 1,800 feet every 20 nutes, researchers at the cific Fisheries Environ- ntal Laboratory in Pacific ove, Calif., realized that ey're natural data collec- s. By arming the animals th simple electronic devices it record temperature and pth, the researchers can e the seals to monitor ean regions too remote for mans to scan. Such mea- rements are critical for ilding accurate models of ean currents and climatic ange.

The researchers, led by orge W. Boehlert, tagged d tracked 16 animals over e course of three years. iring one three-month etch, five seals took more an 22,000 temperature mea- rements in an area where nventional monitors pro- led just 52 readings in the me time period. These cords are now being incor- rated into a database that accessible to oceanogra- ers and climatologists ound the world. □

MATCHLESS DRUG DELIVERY IN A TINY PACKAGE

GETTING THE RIGHT MEDICATION to the right place at the right time—and in the right amounts—is anything but simple. Because they are not specific to a particular organ, small-molecule drugs can trigger nasty side effects when given systemically. But a new technology being developed at Durect Corp., a small biotech company in Cupertino, Calif., may dramatically improve the drug-delivery process.



The invention, which is about the size of a matchstick, is actually a powerful drug reservoir that consistently dispenses potent medicines in extremely small doses over long periods of time. With this system, it is possible to give daily doses of a drug in amounts hundreds of times smaller than a water droplet for up to a year.

For Durect's time-release system to work, the inch-long dispenser must first be implanted just under the skin, usually in the arm. Extremely fine catheters attached to one end of the dispenser allow for the targeted delivery of drugs to specific organs or tissues. The dispenser itself is driven by a piston so powerful it can pump liquids more viscous than peanut butter through its chambers. Durect researchers are developing the technology first for the delivery of a potent opioid for the treatment of chronic pain. The company expects to complete its clinical trials by 2001. □

HOW TO RATE THOSE E-VENDORS

ALL KINDS OF STORES ARE SPRINGING UP ON THE NET, most of which lack brand recognition, and can't afford to buy it. Some stores post customer testimony. But how do you know these scribblings are trustworthy—or even from real customers? That's the problem Massachusetts Institute of Technology Media Laboratory professor Pattie Maes hopes to solve with her new venture, Open Ratings (www.openratings.com). It will license software to portals, exchanges, and other online marketplaces, enabling them to post customer-satisfaction ratings, expressed as zero to five stars. Shoppers can also drill down to see how the rating has changed over time, and read comments. Because the portals and exchanges will collaborate through Open Ratings, shoppers will see the same results, regardless of what link leads them to a store.

Weeding out false or irrelevant testimony is central to this scheme. Before individuals can serve as raters, exchanges will require proof that they have actually purchased goods. And raters' opinions will not all receive equal weight: People will gain influence based on past experience and how closely their ratings predict the aggregate star ratings of the stores they evaluate. That will be calculated by Open Ratings, based on copious data accumulated by each exchange. This may raise red flags on privacy, admits Maes, a longtime privacy advocate. But there will be safeguards, she says: "None of this data will be tied to the names or identities of individuals offline." *Neil Gross*

FIGURING OUT WHICH PROTEINS DO WHAT

SCIENTISTS WILL FINISH A first draft of the sequence of the human genome, the entire set of human genes, by summer's end. Then comes the more difficult task: identifying the functions of the complete set of proteins encoded by the 100,000 genes in the genome.

A decade ago, it would have taken years for a protein chemist to discover the cellular roles of just a few proteins. Now, in the Feb. 10 issue of *Nature*, a team of scientists reports that it was able to determine the activities of hundreds of yeast proteins in just four months. Such comprehensive functional information will allow scientists to quickly identify potential problems with the genes that encode specific yeast proteins. Because yeast and humans share many genes, these genes should make good targets for the development of new drugs to treat human diseases.

When two proteins interact, it's generally true that they are involved in the same cellular activity. One way to identify the role of a new protein is to determine if it interacts with another protein of known function. So, the researchers, led by Jonathan M. Rothberg of the New Haven biotech company CuraGen Corp., chose to comprehensively examine how each yeast protein interacts with all the others in the protein set. In doing so, they identified potential roles for more than 400 novel proteins based on their interactions with previously identified proteins. Forty-six of them may play critical roles in cancer. The researchers say they can scale up their technology to analyze larger protein sets, including those of flies and humans. □

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PHARMACEUTICALS

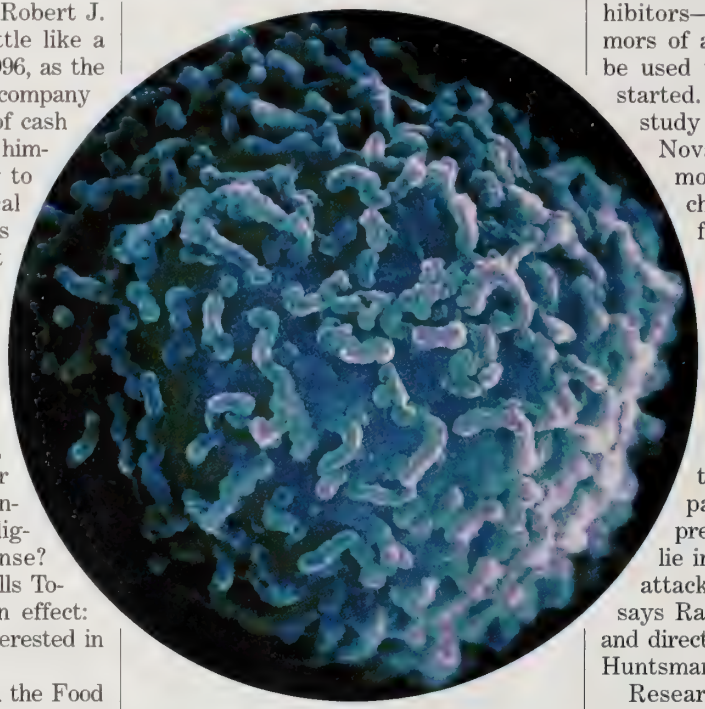
KEEPING CANCER FROM TAKING ROOT

A new approach would prevent the disease, not kill it

For the past four years, Robert J. Towarnicki has felt a little like a traveling salesman. In 1996, as the new CEO of a tiny drug company with only six months' worth of cash in the bank, Towarnicki found himself going door-to-door trying to interest a big pharmaceutical house in helping to develop his company's anticancer drug. It was not an easy sell. For one thing, Towarnicki's company, Cell Pathways Inc. in Horsham, Pa., was testing its treatment in patients suffering from an uncommon form of colon cancer. For another, the drug doesn't kill cancer cells: It aims to prevent precancerous cells from turning malignant. Big Pharma's response? "Everybody blew us off," recalls Towarnicki. "They said to us, in effect: 'We treat cancer. We're not interested in cancer prevention.' "

They're interested now. With the Food & Drug Administration likely to approve the company's drug, Aptosyn, within the next few months, Cell Pathways has found several eager partners. Pharmaceutical giants Hoffmann-LaRoche Inc. and Aventis (the merged Rhône-Poulenc and Hoechst) have signed deals to finance clinical trials to see whether Aptosyn, known generically as exisulind, can block breast, prostate, lung, and other common cancers. Other deals are in the works. And if prostate-cancer trials now under way succeed, Cell Pathways could soon be sitting on a blockbuster anticancer treatment.

OTHER PREVENTIVES. It would be a blockbuster with a difference. For most of the past century, cancer treatment followed the dictum that desperate diseases require desperate measures. Current cancer drugs kill normal cells along with tumor cells. Aptosyn is designed to halt cancer—or at least hold it at bay—before it has begun. "We want to turn cancer into a chronic disease," says Cell Pathways' chief scientific officer, Rifat Pamukcu. "We won't necessarily cure it, but we might control it at an earlier stage and hold it there."



CANCEROUS COLON CELL Researchers found that such cells could be eliminated by encouraging "suicide"

Such drugs must be safe enough to be taken for years by healthy people, many of whom might never have cancer. Aptosyn, so far, appears to have no side effects except at high doses.

Towarnicki is no longer alone in th search for cancer preventives. In D cember, G. D. Searle & Co.'s Celebre an arthritis medication, gained FDA a proval for use as a supplemental trea ment for patients with an inherite form of colon cancer. And the Nation Cancer Institute (NCI) is currently fun ing research of several hundred pote tial preventives. One is Merck & Co Proscar, which was developed for a b nign prostate condition but may al be able to forestall recurrent prosta cancer. Even so-called angiogenesis i hibitors—which deprive incipient t mors of a blood supply—may one da be used to block cancer from gettir started. In 1998, the NCI concluded study that showed that Eli Lilly Novaldex, otherwise known as t moxifen, could cut in half th chance that women at high ris for breast cancer will develo the disease. "The greatest im pact on reducing disease ar premature death from cancer w lie in prevention—prevention th attacks the precursors of cancer says Raymond L. White, a geneticis and director of the University of Utah Huntsman Cancer Institute.

Researchers cannot be certain y that any of these drugs will be wide effective. Aptosyn may prove effecti only in the relatively small group of p tients suffering from inherited colon ca cer, says Zsolt Harsanyi, president the biotech firm Porton International Washington, D.C. But Cell Pathway "may well have a platform technolog

In the Pipeline

Pharmaceutical and biotechnology companies are pursuing drugs that would stymie the disease, rather than treat it

COMPOUND	COMPANY	INDICATION	STAGE OF DEVELOPMENT
Aptosyn (exisulind)	Cell Pathways	FAP, colon cancer	Awaiting FDA approval
Novaldex (tamoxifen)	Eli Lilly	Breast cancer	Approved
Proscar (finasteride)	Merck	Prostate cancer	Large-scale tests
Celebrex (celecoxib)	Searle and Pfizer	FAP, colon cancer	Approved
Selenium and Vitamin E	Various	Prostate cancer	Early NCI trials
Angiogenesis Inhibitors	Merck	Various	All phases

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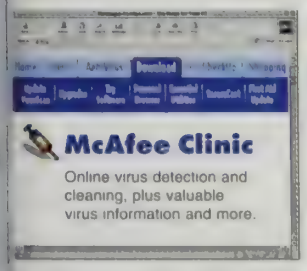

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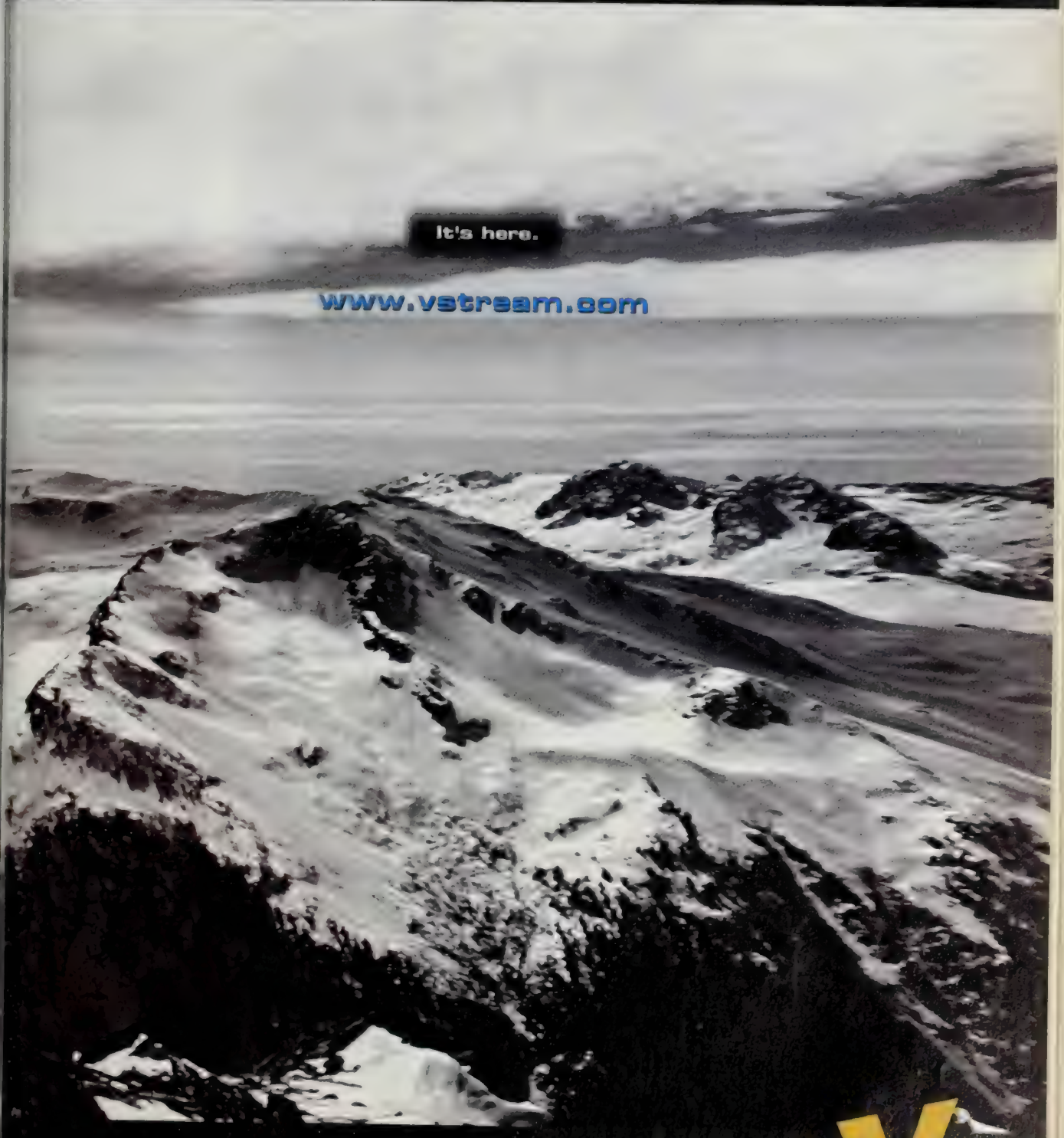

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v) s t r e a m

for finding other chemopreventives," Harsanyi says.

The idea that a drug might be able to prevent cancer rather than kill it did not find many takers when a computer salesman named Floyd Nichols founded Cell Pathways in 1989. Nichols had familial adenomatous polyposis, or FAP, an inherited disorder that produces hundreds to thousands of tiny precancerous bumps, or polyps, in the colon. If caught early, the polyps can be removed. But when they have spread throughout the colon, the only way to prevent them from turning cancerous is to remove the colon.

NOT INTERESTED. Nichols had his colon taken out when he was 19. Polyps began reappearing in his remaining intestinal tissue when he was in his mid-30s. Nichols then learned of an experiment by William Waddell, a surgeon since retired from the University of Colorado Health Sciences Center in Denver. On a hunch, Waddell had given sulindac, an anti-inflammatory drug, to a handful of FAP patients. Their polyps disappeared within months. That was enough for Nichols. Over the protests of his doctors, he took the drug, and his polyps melted away in four months.

When Nichols was unable to interest a single drug company in developing sulindac for colon cancer, he founded Cell Pathways. His partner was Pamukcu, who had supported his decision to try the drug. Using Nichols' money at first, the pair soon turned to friends and relatives and then to venture capitalists, including Microsoft Corp. cofounder Paul Allen's Vulcan Northwest Fund, eventually raising $35 million. Meanwhile, Pamukcu set about determining how the drug worked. The company's researchers, mostly university scientists hired on contract, soon found that the body breaks down, or metabolizes, sulindac into two smaller molecules, one of which provides anti-inflammatory properties. The other metabolite acts on cancer cells, but they did not yet know how.

At that time, colon cancer was thought to be a disease of uncontrolled cell growth. Pamukcu's team found that colon cancer is also the result of cells failing to die. The cells ordinarily live 72 hours before committing a kind of microscopic hara-kiri known as apoptosis. Aptosyn, they discovered, acts by interfering with an enzyme that keeps them from their appointments with death. "With this drug, you are basically blocking the blocker," says Pamukcu.

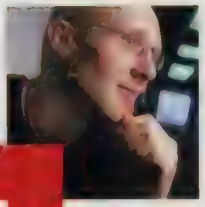
Discovering the drug's mechanism was the good news. The bad news: Aptosyn's target is a well-known type of molecule known as a phosphodiesterase, or PDE. Dozens of PDEs have been ide tified by pharmaceutical companies. S eral companies have also develop drugs that inhibit various PDEs. So C Pathways had to keep its research u der wraps until patents were issued risk the possibility of a larger rival veloping its own inhibitor against t PDE in cancer cells and beating t smaller company to market. And vestors shied away when t company refused to reve the drug's target. "Th thought we were selli snake oil," recalls Towarnic

In the end, a big compa did beat Cell Pathways to t punch. Searle's Celebrex is COX-2 inhibitor, a new cla of drug that avoids nearly of the gastrointestinal side fects of sulindac and oth anti-inflammatories. In a s month trial, Searle demo strated that Celebrex cou reduce polyps in FAP patie by 28%, compared with a reduction in patients taki a placebo. In December, t FDA approved Celebrex t treatment of FAP, provided was used in conjunction w standard treatment while t company continues to mo tor patients.

But Celebrex's early a rival on the market may turn out to a blessing in disguise for Cell Pat ways. The company's shares plung last February, from $23 to under $ when preliminary results from clinic trials failed to show a significant d ference between patients taking placebo and those taking Aptosy Since then, Cell Pathways has rean lyzed its data and conducted mo tests, finding that Aptosyn reduc polyps in FAP patients by an average 50%. The company went to the FI earlier this year with four years' wor of data from some patients, includi two women who faced immine surgery when they first went on t drug. They had already had the colons removed and were still formi an average of 100 new polyps a year

"We want to turn cancer into a chronic disease," says Pamukcu. "We won't necessarily cure it, bu we might control it...."

CELL PATHWAYS CEO TOWARNICKI AND CHIEF SCIENTIFIC OFFICER PAMUKCU



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their rectums. Today, both women are virtually polyp-free. "Searle did something for us we could never do," says Towarnicki. "They spread the word."

While Searle may discover that there is scant advantage to being first on the FAP market, which amounts to only some 14,000 patients, each company is betting that its drug will prove effective in more common cancers. Both are running trials in patients with precancerous conditions that can lead to skin, esophageal, and bladder cancers, as well as noninherited colon cancer, which strikes more than 129,000 Americans a year, killing 56,000. Chemoprevention may also help men who have undergone surgery for prostate cancer. In November, Cell Pathways announced that men who took Aptosyn had a significantly slower rise in levels of PSA (prostate-specific antigen) than those on a placebo. A clinical trial now under way will help determine whether taking the drug is likely to lower the risk of a recurrence.

Positive results from these and other trials could prove a boon to both cancer patients and investors. Cell Pathways is pricing Aptosyn at $2,000 to $2,500 a year to make the drug competitive with hormone therapies for metastatic prostate cancer. "The company's potential is huge, if all goes well," says Heather D. Morris, an analyst at Janney Montgomery Scott, a Philadelphia investment bank. "Even if [Aptosyn] is their only compound and they penetrate the prostate market, it could still become a big drug." The company has a library of more than 500 potential chemopreventives, including one in early clinical trials that is 1,000 times more powerful than Aptosyn.

FATHER'S LEGACY. Even if Aptosyn fails to work in anything but FAP, many experts are betting that one day, cancer will no longer require desperate measures. Instead, tumors will be treated the way AIDS is, with a cocktail of drugs, each of which outsmarts errant cells in a different way. Cell Pathways' new partners plan to test this idea by combining their chemotherapeutic drugs with Aptosyn, hoping to cut the amount of chemotherapy needed and thus cut down on its dreadful side effects.

Floyd Nichols would have liked to have seen that. He died of stomach cancer in 1996 at the age of 43. But his efforts may save the lives of other FAP patients, including his son's. In 1998, Cell Pathways began testing its drug on children with FAP. The first patient was 10-year-old Eric Nichols.

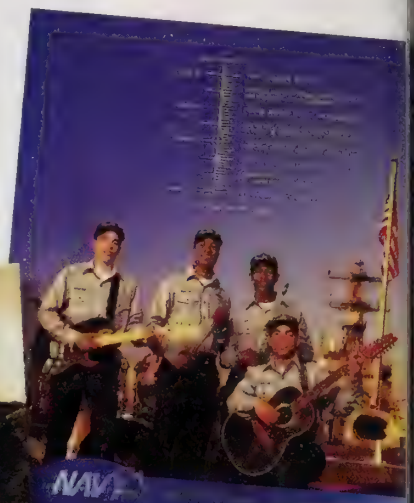
By Shannon Brownlee in Horsham, Pa.

ADVERTISING

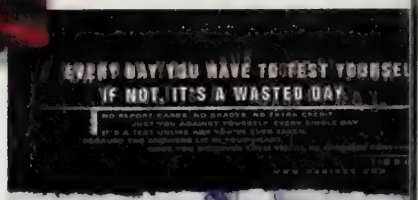
UNCLE SAM WANTS YOU...TO HAVE FUN!

The military is hoping new ads will attract Gen Y recruits

Smack in the middle of New York's Times Square, James Sutton Jr. is surrounded by the enemy. The U.S. Air Force sergeant is charged with persuading kids to serve their country at a time when unemployment is at a 30-year low, college aid is plentiful, and dot-com dreams are flashing up on gigantic video screens outside his window. It's no easy task, he concedes.



NEW LOOK: *Navy enlistees jam atop an aircraft carrier, and smiling mates sightsee in exoti locales. Ads for the Marines ha adopted the distressed typeface seen in teen and music magazin*



But reinforcements are on the way. Stung by missed recruiting targets and an apathetic public, the U.S. military has launched a full-scale assault on its own image. It is marshaling money, technology, and celebrity marketing to reclaim its lost prestige. The primary target: a group of young people almost as large as the baby boomers—Generation Y.

Good luck. As members of Generation Y—those born after 1978—come of age, the military isn't even on their radar screens. They have more alternatives than any generation since the draft. They've lived without the threat of war. And they've grown up in a decade of military downsizing and scandals over gay-bashing and sexual harassment. "Join the army? You've got to be kidding, right?" says Terence Jones,

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loitering near the Times Square sta-, the military's busiest, with about)00 visitors a year. Jones and his nd, Mark Walters, laugh when con-ıted with new ads that show enlis-: at play. "That's like the one minute un you're gonna get," Walter snorts. 'hat attitude is creating a king-size blem for the armed services. Even ıgh the military is about 30% small-han it was a decade ago, recruiters having a hard time making their ıbers. The Army fell 6,300 recruits rt of its 1999 target of 74,500 last r. The Air Force missed its goal by 'e than 5%. Offers of pay raises and porate-style signing bonuses aren't ıg the trick. Even in poor and mi-ity communities, where the military traditionally been strong, economic ansion has created new civilian jobs, ting it harder to find soldiers.

CK ADS. Now, the military is fighting k, using the same tactics that any poration with a marketing problem ıld employ: high-powered advertis-Spending by the four branches is up a third over last year, to $286 mil-ı. Slick new ads show recruits at ure time around the world. A com-'cial for the Navy includes a group of ng men jamming with guitars atop aircraft carrier. Marine Corps ads pense with live action and instead e a young man in a video-game set-g, doing virtual battle with a fire-athing dragon. "We have to show t it's not what you see in *Forrest mp*," says Air Force Recruiting's f of advertising, Tim Talbert. "You 't brush the floor with toothbrushes." o bring that point to life, the Air 'ce will begin a national tour of the

FORCE SPOT: *"We ve to show that it's ıot what you see in* Forrest Gump"

r Force Experi-e" this month. The nival-style road w features videos, flight simulators, an F-16 jet. It will make stops at pping-mall parking lots and schools communities across the country.

Meanwhile, Defense Secretary Wil-n S. Cohen is on a mission to enlist lywood and sports celebrities to his ruiting drive. In January, he went to s Angeles, meeting with about a en celebrities, including Steven elberg, hoping to persuade them oin the marketing blitz. He's nego-ing with Fox TV's *NFL Sunday* to e the commentators broadcast from

AN ANIMATED MARINE CORPS COMMERCIAL PLACES A YOUNG MAN IN A VIDEO-GAME SETTING, DOING BATTLE WITH A FIRE-BREATHING DRAGON

an aircraft carrier later this year.

There are some early signs that the beefed-up marketing may make this younger generation take notice. In 1998, the Navy had an advertising budget of $63.4 million and fell nearly 7,000 short of its enlistment target—getting 48,429 recruits when it wanted 55,321. Last year, it hired movie director Spike Lee to create realistic spots and managed to make its target of 52,524.

But an improved sales pitch can't make up for the fact that today's teens lack the military role models of previous generations, says Albert J. Martin, a military-marketing consultant. They've grown up in an age of the volunteer service, so fewer of them have close relatives who served in the military. Up until now, "there's no national leader who is supporting the role of the military and holding it up as having a special place in society," he says. With high-profile veterans such as Senator John McCain (R-Ariz.) coming on the scene, that may change, Martin says, but advertising alone won't make the difference.

Nor are ads stronger than the force of the economic expansion. It's not just that 18-year-olds can get good jobs in today's economy. Their parents can afford to send them to college in greater numbers, taking a big chunk of middle-class kids out of the traditional recruiting pool.

That's even the case for military parents. Air Force recruiter Sutton has encouraged his 18-year-old son to try college first. "I'd like him to join, but he has other interests," Sutton says sheepishly. Most of his son's peers do, too.

By Diane Brady in New York

Sign Up Now

To attract young people to the armed services in a booming economy, the U.S. military is taking a lesson from corporate marketers. A few of its latest moves:

HOT STARS The Pentagon is courting stars such as Tom Cruise and Harrison Ford to appear in upcoming ads. The Navy's commercials are directed by Spike Lee.

BIG SHOWS The Air Force's technology-studded road show—complete with flight simulators and an F-16 fighter—visits shopping-mall parking lots and high schools around the country.

GAME SPONSORSHIP The Marine Corps is a sponsor of The X Games, a made-for-TV extreme-sports competition popular with teens.

DATA: BUSINESS WEEK

THE INTERNET

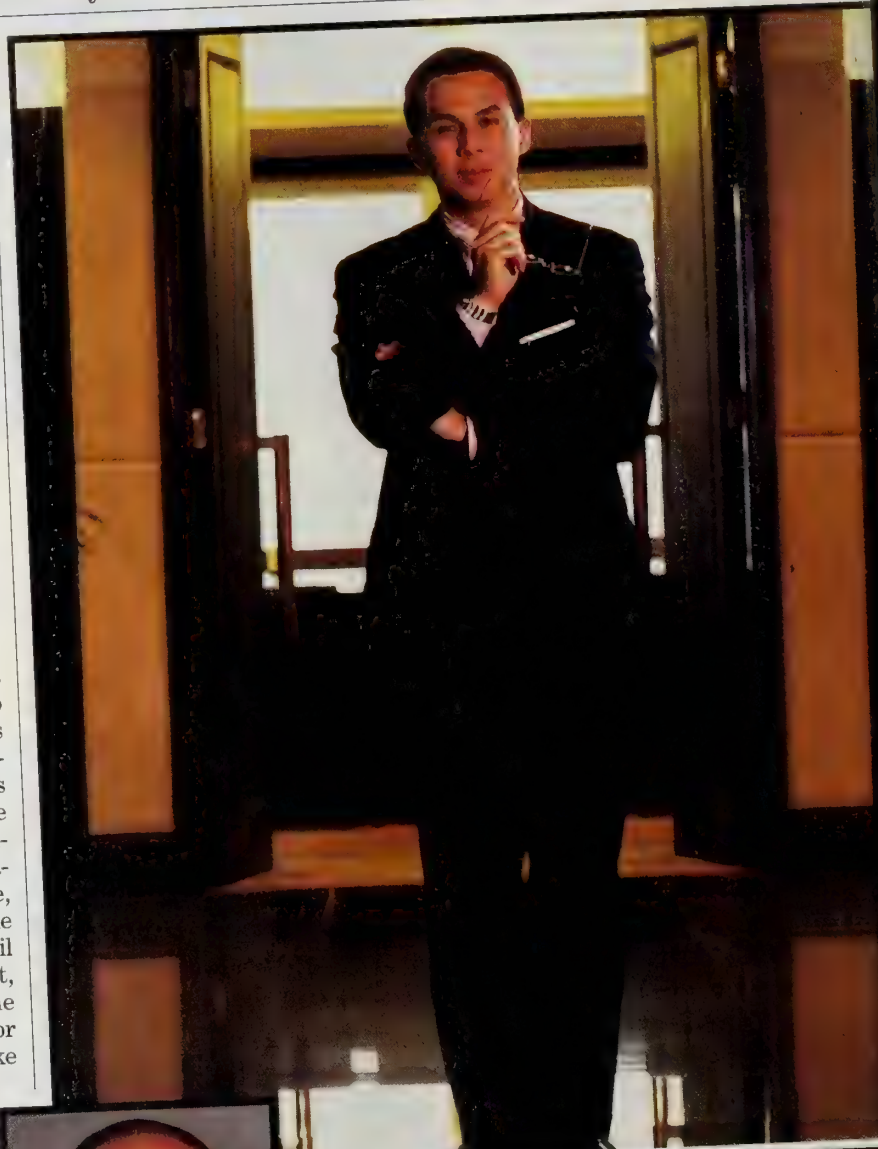
LOOK WHO'S TAKING ASIA DIGITAL

The sons and daughters of old-line tycoons are making big bets on cyberspace

For four generations, members of Thailand's Lamsam family have run their business empire the traditional way. The clan elders, ethnic Chinese who own Thai Farmers Bank and the Loxley industrial group, called the shots without much input from the hired help. To communicate with the top brass at Loxley, for example, nonfamily members had to penetrate a rigid hierarchy, using deferential memos cluttered with flowery Thai phrases. The layers of control helped the Lamsams retain a firm grip on operations and discourage anyone from taking risks that could rock the family business.

Today, Loxley is undergoing a cultural overhaul. Still chafing from debt accumulated before Thailand's financial crisis, the group aims to use e-commerce to boost sales and cut costs at its chemical, trading, and consumer-products businesses. Building on its hot Internet service provider, Loxinfo, the group wants to develop Thai-language portals and do procurement online. And by using the group's intranet, all employees can directly contact Chief Executive Dhongchai Lamsam and his cousin, Executive Vice-President Vasant Chatikavanij, using chatty English. Deference, caution, and stifling control are out. The new philosophy? "Try 10 ideas and fail at 7—that's no problem," says Vasant, 43, who has helped spearhead the change after studying and working for 14 years in the U.S. "We have to make sure we are not dead."

NOW IT'S "PORTAL." Old-line family business dynasties across East Asia are coming to the same conclusion. The Internet has become the answer for oligarchs who are questioning their business models as never before. The region's meltdown set back their dreams of building global corporate giants based on property, heavy industry, and retail. Until then, Asia's insular ethnic Chinese empires were in no hurry to adapt to the Information Age. But now, conglomer-



◄◄◄◄◄ THE LIs Hong Kong ◄◄◄◄◄

RICHARD LI, 33 (top) is building Hong Kong's Cyber-Port project, launching satellite broadband service, and investing in dot-coms

Family Business: The Hutchison Whampoa (retail, telecom) and Cheung Kong groups (property, infrastructure), headed by father **LI KA-SHING** (left)

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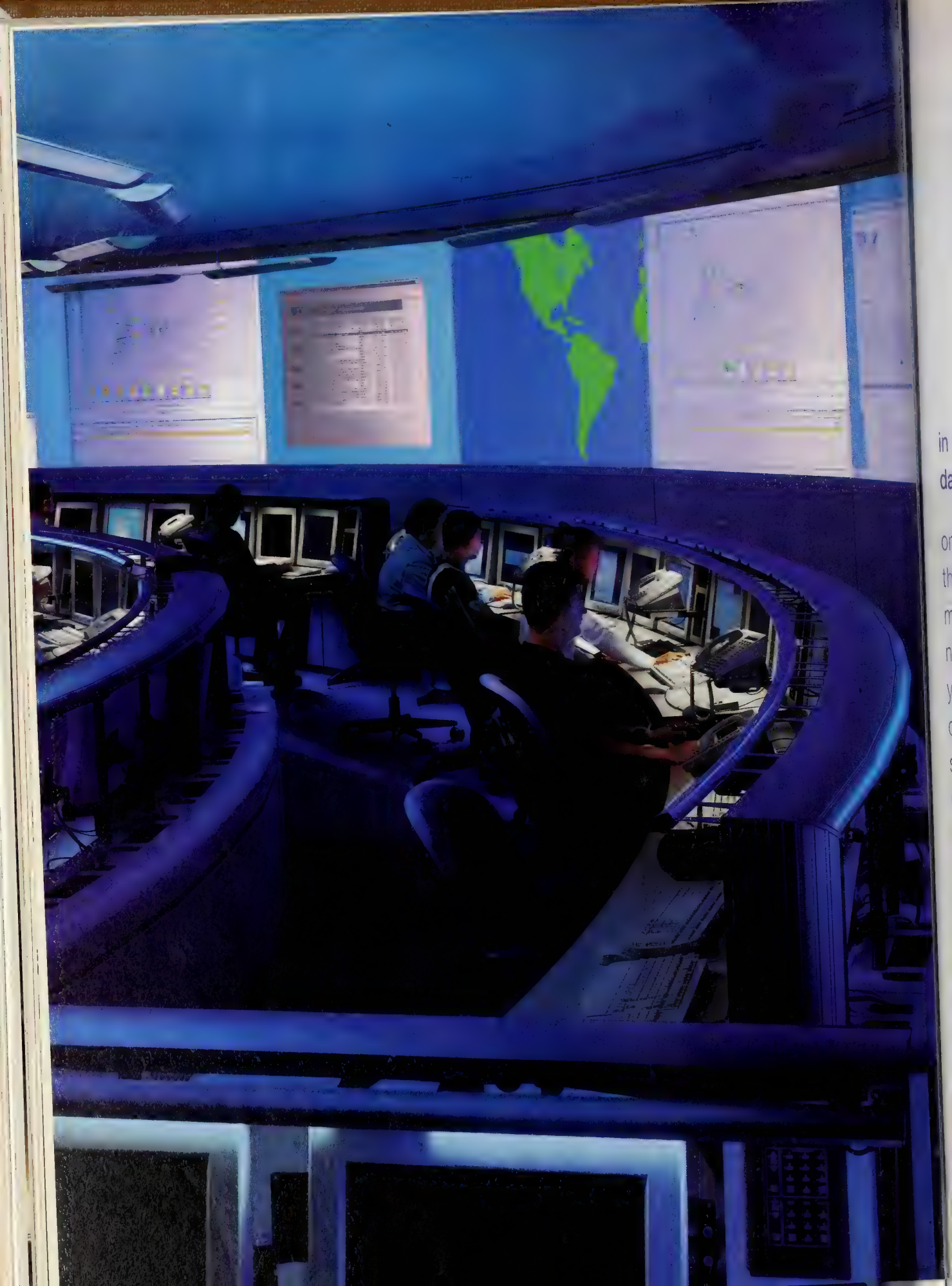

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Even post-meltdown, these dynasties have the connection needed for access to loans, deals, talent, and favors

ates such as Loxley are trying to transform their managements, flatten their organizations, conduct business online, and forge new alliances or subsidiaries to provide Net content and access.

The takeoff of dot-com stocks also is teaching them that some of the richest real estate is now in cyberspace. "Before, they were talking about how I have this piece of land," says Canning Fok, managing director of Hong Kong infrastructure, telecom, and retail giant Hutchison Whampoa, which has a slew of e-commerce projects. "Now, they are talking about how I have this portal."

By using their considerable wealth and connections to grab early leadership stakes in e-commerce, the dynasties hope to prolong their dominance of East Asian business. While their assets have shrunk since 1997, the region's billionaires are still the best positioned to raise the cash needed to build the Internet service providers, high-speed networks, and Web sites needed for electronic commerce.

Next-generation clan members, often educated in the West, are leading the push. In Hong Kong, Hutchison Wha poa Deputy Chairman Richard Li, s of billionaire Li Ka-shing, has turn his Pacific Century CyberWorks into Internet power broker. Henderson vestment's Peter Lee, son of Ho Kong property magnate Lee Shau-k has unveiled a plan to deliver bro band Net access through the famil gas company. Jeffrey J. L. Koo Jr., 35 investing in U. S. and Japanese sta ups in a bid to turn his family's Taiw bank into an online force. And Supac Chearavanont, son of Charoen Pokpha Group Chairman Dhanin Chearavano is unveiling an e-commerce strategy revive TelecomAsia, the debt-ridd subsidiary of Thailand's agribusiness a retail powerhouse.

"It's scary," says venture capital Peter Liu, founder of San Francis based W. I. Harper, which has a $ million Asian investment fund backed part by Hong Kong's Sun Hung K Property, run by the Kwok fam "Everyone and his brother is trying be an Internet company."

"ALL NOISE." To many analysts, that plenty of reason to be suspicious. ten, the Internet plays of leading c glomerates appear to be little more th attempts to keep up with rivals or cash in on the newest fad. Asian vestors fawned over practically a company with an Internet angle l year, notes Hong Kong-based Lehm Brothers analyst Philip Tulk. He gards many of these companies' N plans as "all noise" intended to bo stock prices. As Asia's e-commerce fi gets more crowded and as giants su as Yahoo! Inc. and America Online I gear up, many such entrants are lik to be pushed aside.

There also are pitfalls to having t same tycoons become the overlords Asian cyberspace. In the U. S., Net tr blazers weren't lifelong toilers Corporate America but brilli young innovators who built com nies such as Netscape and Amaz In Asia, where government de sion-making remains opaque, c line families still have the *guanxi* connections, needed for access capital markets, deals, talent, government favors. They co crowd out new players, stunting c ativity. There's also a risk that so Asian conglomerates will treat N

THE KOOs Taiwan

JEFF KOO JR., 35 (top) is developing an ambitious e-commerce strategy for Chinatrust, linking broadband service, online trading, and business portals

Family Business: Chinatrust Commercial Bank, Taiwan's most powerful private financial group, headed by father **JEFFREY KOO** (right)

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THE KWOKs Hong

RAYMOND KWOK, 46 (top) chairs SMARTONE, targeting the wireless Web. With his brothers, he is moving into online auctions and venture capital

Family Business: Sun Hung Kai properties (real estate). Developed by their late father Kwok Tak Seng and now headed by brother **WALTER** (left)

service as they did franchises in other sectors—as cash-spinning utilities to be milked rather than as engines of growth.

But one could also argue that the big families are helping online business grow more quickly in Asia. Savvy, new-generation tech mavens such as Li and Koo have become key patrons to dozens of young entrepreneurs. Many are helping finance startups in Asia as well as Silicon Valley, often working with Net-investment pioneers such as CMGI Inc. or Japan's Softbank Corp.

True, Richard Li's $1.6 billion CyberPort—an industrial park for information-technology companies—stirred controversy in Hong Kong because Li got public land without competitive bidding. But Li's entrance also "has really galvanized a lot of interest in the sector," notes Christopher Justice, CEO of Asiacontent.com, a year-old Hong Kong company that has local franchises of such sites as C-Net and MTV Asia.

Others have benefited more directly. Chih T. Cheung, 29, is founder and CEO of HelloAsia.com, a new portal. HelloAsia offers "loyalty points" that users can trade for advertisers' products. Cheung worked for Koo during a summer break from Harvard Law School and credits him with getting his company off the ground by leading a $20 million investment. The stake is a small part of Koo's e-commerce strategy to transform the family business into Taiwan's financial leader (page 106).

Hong Kong's Li family is making the biggest splash. Richard's Pacific Century CyberWorks plans to deliver high-speed Net access and programming across Asia via satellite and cable. CyberWorks has attracted such partners as Intel and DaimlerChrysler. On Jan. 25, it unveiled a pact with CMGI to develop Asian versions of AltaVista and other popular sites owned by the U.S. company. Meanwhile, father Li Ka-shing, whose net worth is estimated at $13 billion, is moving to ensure that family flagships Hutchison and property giant Cheung Kong Holdings also are at the forefront of the Net revolution.

The elder Li has joined with U.S. telecom company Global Crossing to hook Hong Kong to the U.S. with submarine fiber-optic cable to offer high-speed trans-pacific Net service for corporations. Li's new tom.-com hopes to be the top Chinese-la guage portal for e-commerce. Cheu Kong and Hutchison plan to form business portal with banking giant HS A month earlier, family-controlled cel lar operator Hutchison Telecommuni tions got a boost when Japan's NTT I CoMo paid $410 million for a 19% sta That should position Hutch ahead of cal rivals in the rollout of wireless services, in which DoCoMo is a lead

NAPPING. The Lis' retail empire ne the online business. ParkNShop sup markets and Watson's drugstores battling maverick businessman Jim Lai's adMart, a virtual retailer selli goods via fax, phone, and the Web cut-rate prices. But Hutchison figu it has an edge: Late this year, its jo venture with Compaq Computer Co is to launch an exclusive service t will let Hong Kong citizens register government services online—and a gain access to Hutchison retailers. F instance, ParkNShop and Watson's offer baby products to new parents w use the site to obtain birth certificat

By catching Hutch napping, L bargain service illustrated a major ch lenge facing entrenched dynasti Thriving for years against limited co petition, Hutch didn't have to wo about customer service. That won't in the Net Age. But developing a c ture of speed, flexibility, and resp siveness isn't easy for an establish

THE LAMSAMs Thailand

VASANT CHATIKAVANIJ, 43, (top), and cousin **DHONGCHAI LAMSAM** are using the Net to revamp family industrial companies and starting e-commerce services through Loxinfo, an ISP

Family Business: Thai Farmers Bank and Loxley Group, with 60 companies in chemicals, trade, and consumer products, headed by Vasant's mother **CHATCHANI CHATIKAVANIJ** (left)

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▸▸▸THE CHEARAVANONTs Thailand▸▸▸

SUPACHAI CHEARAVANONT, 32 (top) is trying to revamp TelecomAsia Corporation Publicco by launching a high-speed Internet service

Family Business: Charoen Pokphand Group (agribusiness, retail, industry, property), headed by father **DHANIN CHEARAVANONT** (right)

conglomerate. David C. Michael, head of Boston Consulting Group's e-commerce practice in Hong Kong, argues that new initiatives won't mean much unless Asian blue chips also adopt a more relaxed workplace. "If everyone in the company wears a uniform and works 8:30 to 5:30," Michael says, "there is a very strong culture that isn't conducive to the kind of people you need to create an e-commerce business."

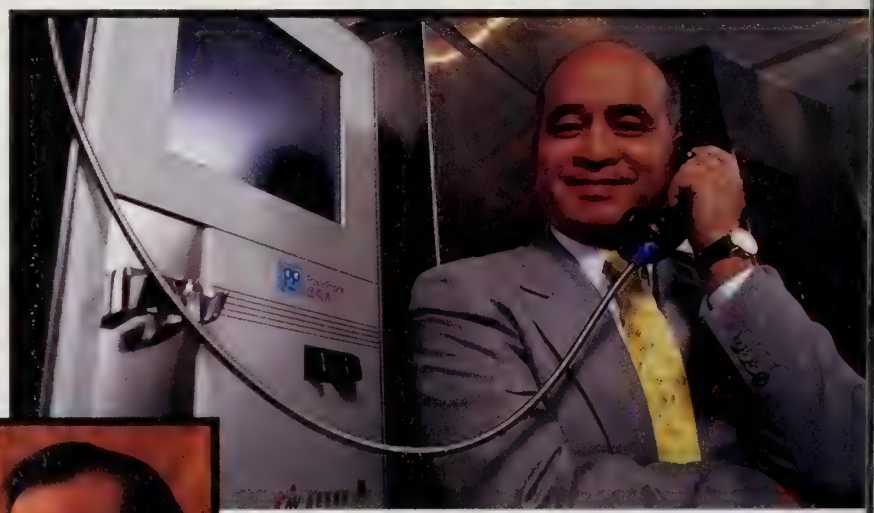
Thailand's Loxley Group is trying to address that problem head-on. Vasant and his cousin Dhongchai are dismantling barriers that prevented interaction within the group. Half of Loxley's 3,000 employees now use the company intranet. "Everybody has become more informal," says Vasant, who wears khaki pants and a polo shirt to work. "Informality creates a lot of idea flow."

Vasant can point to results. Last year, several low-level employees contacted him with an idea to convert one of his failed projects—a smart-card system that Loxley employees were to use in the company cafeteria—into a new business. Within six months, Loxley rolled out iKooL, a card that allows users to access the Web from sidewalk kiosks. By yearend, Loxley wants procurement officers in all group companies to buy office furniture and equipment online, reducing paperwork and saving about $300,000 a year. Such savings would help Loxley, which is shouldering a $200 million convertible bond left over from the financial crisis.

Updating management is also a t priority for Yvette Ong, chief execut of New World CyberBase, the Net vestment arm of the New World ho telecom, and property group. "This not a property company. It can't be r like a traditional business," says Ong, who isn't a member of New World's r ing Cheng family. She promises "a ne wave management style" and "an or nization that moves at the speed lightning." Ong has worked with c sultants to create a culture that is ferent from the rest of the New Wo Group. CyberBase staff work in tea avoid titles, and don't stick to spec roles. "This is like a startup, where p ple can be pulled together to innov and easily mobilized to get things don says Ong. CyberBase's main busin is a service offering public videopho at Hong Kong's airport. Other deals in store.

CONTRIVED SCHEMES? But don't exp the new culture to penetrate the ent group soon. CyberBase's managem style "has no impact on the running New World Development," the grou flagship, says Managing Director He Cheng, also chairman of New World berBase. Just because the group Internet offshoots "doesn't mean we adopting Internet functions in all pa of our company."

The hesitance to go all the way transforming tradition-bound conglom ates does raise doubts about whet



◂◂◂◂THE CHENGs Hong Kong◂◂◂◂

HENRY CHENG, Age 53 (top): Started Net investment firm New World CyberBase and has a big stake in Nasdaq-listed Chinadotcom

Family Business: New World Group (hotels, infrastructure, property), headed by father **CHENG YU-TENG** (left)

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Some tradition-bound conglomerates appear to be merel mimicking Internet lingo and management fashions

they are ready for the Net Age. Some come off as merely mimicking the lingo and management fashions of Silicon Valley. Other Net schemes seem contrived—or look like property deals with an IT twist. Take the proposed Cybercity Internet hub in Jakarta, backed by the Soeryadjaya family. The family once controlled Astra Group, whose businesses ranged from autos to electronics to agribusiness. It lost control in the mid-1990s, after Edward S. Soeryadjaya, son of founder William, lost hundreds of millions of dollars in property and finance schemes.

But Internet fever has given Edward, 51, now executive committee chairman of Singapore-listed L&M Group Investments, a shot at redemption. With help from Jakarta's city government, he wants to turn an abandoned airfield into an IT hub modeled on Li's Cyber-Port. The 430-hectare site seems an unlikely place for a tech haven. On a recent weekday morning, a handful of workers lounged in an empty square framed by old airplane hangars while loudspeakers piped in Bob Marley singing reggae classics such as *I Shot the Sheriff*.

CYBERCITY. Soeryadjaya didn't know what to do with this land. "How can it be developed?" he says. "To make it a Shoe City or a Garment City doesn't sound good." A Cybercity does. While neighboring Malaysia has had limited success in creating a similar IT hub from scratch, Soeryadjaya insists his plan can work in Indonesia, where only 1 in 700 people is online. "Indonesia can't escape being part of the global trend," he says.

Other Asian families seem more realistic. Thailand's CP Group was burned badly in the 1990s. Its TelecomAsia unit built too many phone lines and buried itself in debt it could not repay. Boston University-educated Supachai, the new CEO, insists the e-commerce push is "totally different." With its telecom concession, the government dictated the number of lines to install and got a big cut of revenues. Now, "we have a choice to start to invest in small portions and try out the market first, instead of running into a huge investment right away," he says. "We will be growing with the market."

Such caution is counter to the way most dot-coms were built. In the U.S., Net leaders took bold moves to make a splash, even if it meant losing gobs of money. Many Asian conglomerates burned in the crisis are not yet ready to take that kind of risk. So it may be harder for them to build up market share across the region. Still, the families have sizable advantages. During the depths of the crisis, few seemed capable of rising to the Internet ch lenge. But most were strong enough weather the storm. Now that they' awakened to the new realities of a co petitive world, the dynasties have chance to build the commercial empi of the future rather than fade away Asia charges into the new era.

By Bruce Einhorn in Bangk

RUSHING THE NET IN TAIWAN

Just a year ago, Chinatrust Commercial Bank CEO Jeffrey J. L. Koo Jr. doubted the Internet could ever take off in Greater China. He figured few Chinese speakers would bother with a medium in which English was so dominant and that required them to type out complicated characters.

Then he visited Seattle and saw Microsoft Corp.'s William H. Gates III and Steve A. Ballmer demonstrate voice-recognition software. Soon, he realized, Chinese speakers won't have to bother with keyboards. "It was a tech shock," recalls Koo, 35. "I decided to come back and push this thing."

Now, Koo is one of the new princes of Asia's Internet. He has certain advantages: Koo comes from a long line of heavy hitters in Taiwan. His family's holdings include the island's two biggest cable-television companies. Uncle Koo Chen-fu advises President Lee Teng-hui and is Taipei's top negotiator with Beijing. His father, Jeffrey Koo, built Chinatrust Commercial Bank into one of Taiwan's top private financial groups.

Jeff Jr. and his younger brother, Angelo, 34, chief operating officer at securities house KGI Asia, want to transform the family empire into the main broker of Asia's New Economy. Angelo directs the regional online trading drive. In three years, he has snapped up brokerages in Hong Kong, Thailand, and South Korea that together manage $2.9 billion. The Koos also have links with Goldman Sachs and Sony. "The first one to produce a platform will be the winner," says Angelo.

Meanwhile, Jeff is laying e-commerce foundations at home. He has recruited like-minded, U.S.-educate Taiwanese to seek investments. So far, Chinatrust has bought into Ubexco, a new portal specializing in supply-chain management. In November, Mi crosoft paid $35 million for a 10% stake in the Koos' GigaMedia, which will offer broadband Net access to 3.5 million cable subscribers.

To keep up to date, Jeff Koo spent a third of his time in 1999 exploring North American technology hot spots. "The important thing is to get into the game," he says. With the insights they have gathered abroad and their enviable contacts at home the Koo brothers are on their way to ensuring a role as major Interne players in Asia.

Koo thinks that voice-recognition software will b key in winning over Chinese speakers

By Bruce Einhorn, with Sarah Davison, in Taipei

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TROUBLED LOT
Sales of Saturn's L-Series models have fallen far short of projections, leaving a glut of inventory

DETROIT

RUNNING RINGS AROUND SATURN

Rivals are stealing the carmaker's once-loyal customers. Is the magic gone?

No one has to tell Russell E. Hand how badly Saturn Corp. needs new models to sell. The Torrance (Calif.) Saturn dealer has been watching helplessly as rival Toyota Motor Sales USA Inc. and American Honda Motor Co. lure his once-happy small-car customers into roomier Camry and Accord family sedans. "If someone really needed a bigger car, we didn't have a way for them to go," laments Hand.

Small wonder, then, that when the General Motors Corp. division finally delivered the new L-Series midsize car to its long-suffering dealers last summer, hopes were high. After all, Saturn dealers have had a one-car lineup for 10 years. While GM was investing in its other established brands, Saturn was repeatedly passed over for a new model. Even a redesign of its aging S-Series compact was turned down. As a result, the brands' once-legendary popularity has plummeted as Saturn owners defected to the competition's larger cars, sport-utility vehicles, and newly designed small cars.

Falling behind on new models has cost Saturn and its parent dearly. While just 5.6% of GM's sales at its height in 1994, Saturn, with its fresh image and huge customer following, represented one of the few bright sp on the auto giant's horizon. Since th however, sales have fallen 20%. La year alone, small-car sales plunged 10 even though small-car sales industr wide rose 7%. And in J.D. Power Associates' 1999 sales-satisfaction dex, consumers ranked Saturn sixth the first time in four years the bra wasn't on top.

> The new midsize car was to be a savior. Now, GM is slashing production plans

If all that weren't troubling enou now comes the lukewarm reception the new L-Series midsize car. It was be Saturn's savior, designed to lure n buyers and bring back its old custome But when dealers finally got an am supply of LS sedans and LW wagons, t crowds never showed up. "The blo is off the Saturn rose," says former de er David McDavid of Dallas.

Since July, L-Series sales have av

xactly how are the world's leading CEOs feeling
bout the future?

] Extremely optimistic

] Somewhat optimistic

] Somewhat pessimistic

] Extremely pessimistic

] Don't know

Ve asked 1020 of the world's leading CEOs what
heir views were on the future of their business,
-business, and their competition. What did
hey have to say? You may be surprised.
nside the Mind of the CEO. The 2000 Global CEO
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Saturn is rolling out aggressive new ads, but the company concedes it has lost crucial momentum

aged fewer than 5,000 cars a month, falling far short of GM's projections of 15,000 monthly sales. That forced Saturn, glutted with inventory, to halt production at its Wilmington (Del.) plant for two weeks in January. Meanwhile, Saturn competitors continue to rack up sales in the midsize car market. In January, Toyota Camry sales of 40,285 and Honda Accord sales of 24,241 dwarfed the 4,381 L-Series cars sold. Those numbers are even more startling considering both the Camry and the Accord sell for a few thousand dollars more than the $16,000 to $22,000 price range for an LS sedan. "We get a lot of Saturn trade-ins," says George Black, general manager of Mile High Honda in Denver.

So what's the problem? Uninspired styling of the L-Series hasn't helped matters, analysts insist. But last fall's $82 million-plus "Next Big Thing" advertising campaign somehow failed to make clear the car's roomy midsize dimensions—one of its major selling points. The ads portrayed the car as a fun family sedan, but did little to show that the car was larger than the Saturn compact.

Now, as the L-Series' problems linger, Saturn has quietly moved to slash its production. Suppliers say the company told them in recent weeks it will crank out just 150,000 cars annually, instead of the 200,000-plus originally planned. That means GM will likely have to pay suppliers more for parts, cutting already thin margins—about $2,000 per car. That's only about one-fifth of what auto makers can gross on their bigger sport-utility vehicles, says Rod Lache, a Deutsche Bank analyst in New York who estimates that the Saturn Div. is at best "marginally profitable."

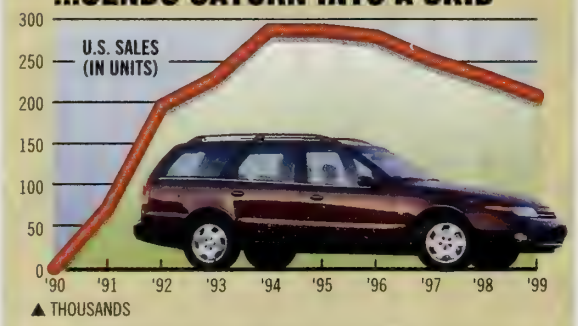
"DISHEARTENING." It's all a huge comedown since the days when Saturn was GM's hottest unit and one of the true success stories of U.S. auto makers in the early 1990s. But what bothers Saturn fans most is that clear signs of trouble went ignored for years. "It's been a great franchise, so it's disheartening to see things go awry," says Dallas Saturn retailer Randy Hiley. "The market changed, and Saturn wasn't ready for it."

Saturn's customers and dealers have, in fact, long clamored for more models. But early on, cash-strapped GM was forced to make tough choices about where to invest its capital. Saturn lost out to Oldsmobile in a debate among executives over whether to kill Olds or revive it at Saturn's expense, says retired Saturn President Richard G. "Skip" Lefauve. "We were a small subsidiary trying to work our way to profitability," he says. "That was more risk than [GM] wanted to take." Instead of giving Saturn a new car when the brand was hot in the mid-1990s, Olds and other divisions got new product money.

A BUMPY RIDE...

- By selling only compact cars for 10 years, Saturn has lost ground to foreign car companies
- Production snafus slowed its launch and limited supply of new midsize sedans and wagons
- Lured by a generous spate of rebates from competitors last fall, consumers have been slow to warm to the new Saturn
- A confusing ad campaign late last year failed to attract buyers to the new, bigger models

...SENDS SATURN INTO A SKID



DATA: BUSINESS WEEK; AUTOMOTIVE NEWS DATA CENTER (1990-99)

Many of the L-Series' current woes stem from the way GM finally agreed to grant Saturn a new model. To save on costs, GM had Saturn share the basic chassis undercarriage with the Vectra sold in Europe by the company's Adam Opel AG unit. The car was designed by the two units at GM's European engineering center in Russelheim, Germany. Saturn, however, didn't do enough early dry runs with workers to iron out bugs in the assembly process. The result was poorly fitting parts and slowed assembly time. There were also shortcomings in adapting the European design for the U.S. market. Tiny holders, for example, had to be qui redesigned to accommodate Big G By the time Saturn got the manu turing problems worked out, it winter rebate season and rival companies were laying out deal move cars off their lots. But that practice Saturn has long shied a from because of its no-haggle s philosophy.

Saturn executives aren't apologi for the L-Series missteps. "There glitches in every launch," explains urn President Cyn Trudell, a former Wilm ton plant manager hir year ago to ignite a t around at the static sion. "Our launch complex because it done globally," with pro tion and design span three continents. Tru also blames stagnant s on last fall's failed campaign.

CHANGING TASTES. Now is scurrying to undo damage. "We have to consumers to see Satur more than a small-car pany," says Ronald Zarrella, GM's president North American operat So Saturn is rolling o new series of uncharact tically aggressive ads ated by Publicis, Hal R & Partners, the same agency it used be These ads pit the L-S directly against the Ac and Camry, even sho them in one commer But relaunching cars with new ad paigns is notoriously difficult. Trudell concedes that the company lost crucial momentum. "You change what happened," she says. have to make the best of what have going forward."

It won't be easy. The original compact sedan and coupe targeted Toyota Corolla and Honda Civic h on. Saturn sold 2 million small ca the 1990s, and fully 60% of those snapped up by former foreign-car ers. But this time around, the im lovers aren't biting. "We were ho

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for a larger proportion of Camry, Accord, and Taurus buyers," says Mark Pagan, general manager of Saturn of San Francisco, a dealership. "We're not seeing that yet." Current consumer tastes haven't helped Saturn much either as buyers move increasingly toward SUVs and luxury cars, which Saturn doesn't offer.

Typical of the type of Saturn owners who have defected in droves in recent years is Karan Berryhill, 23, who recently traded in her Saturn coupe for a new Honda Civic. Like many other former Saturn owners, Berryhill complains that the carmaker has been glacially slow in upgrading its models. "I liked the Saturn, but it's too rough and noisy," she says. "They'd made some improvements to the new one, but not enough."

With that sort of customer dissatisfaction, it's no wonder that its retailers notice a lot less traffic in showrooms these days. A few have sold their stores. Others are hanging on, hoping for a turnaround. "Now we're making a little or losing money," says Dallas dealer Hiley, bemoaning his 16% drop in 1999 sales and profits.

CUSTOMER CONTROL. With profits down, Saturn dealers are trying to make money any way they can. For example, says J.D. Power analyst Brian Walters, is that the dealers are negotiating harder on trade-ins to beef up their profits. "It hasn't gone unnoticed by Saturn buyers," says Walters. Executives at GM counter that the brands that beat Saturn are customer-pampering luxury marques, adding that no mainstream division has matched Saturn's customer-satisfaction levels.

The carmaker faces another new challenge—a growing number of better-informed buyers with easy access to dealer invoices from the Internet. As a result, consumers are far more willing to haggle and far less impressed with Saturn's once-vaunted no-hassle pricing policy. "Control over negotiating is shifting to the consumer," says Loretta Seymour, a J.D. Power director. "And that's biting Saturn."

GM executives, troubled by Saturn's decline, are anxious to keep the division healthy. So the auto giant, eager for the younger, import-loving buyers that Saturn used to attract, is placing more bets on the division. But has the moment passed? "To me, it's never too late," Trudell says. But many former Saturn owners now driving Japanese cars obviously disagree.

By David Welch in Detroit

HARD AT WORK UNDER SATURN'S HOOD

Perhaps the biggest compliment an auto executive can receive is to be called "a car guy." In Detroit parlance, that's somebody as comfortable in an assembly plant as in a high-level corporate strategy meeting. And by that measure, no one is more of a car guy than Saturn Corp. President Cynthia Trudell, say her co-workers and friends.

For Trudell, who came up through the engineering ranks, walking through a factory in work boots with union stewards has long come naturally. But she has also long been a rising star inside GM's corporate elite. A 19-year veteran, Trudell has worked all across the GM universe. Not all business, though, Trudell, 46, also attempts to embody Saturn's fun-loving reputation within GM. She has more than once showed up at auto shows wearing sparkling ruby red shoes, not unlike those worn by Judy Garland in *The Wizard of Oz.*

STARTERS. Of course, it will take more than clicking her heels to turn around what was once a jewel in General Motors Corp.'s lineup. And GM clearly has a lot riding on her abilities. Trudell, a native of New Brunswick, Canada, grew up in the business—her father was a car dealer. Her first post at GM was as an engineer in the Windsor (Ont.) transmission plant. She rose to become head of Saturn's Wilmington (Del.) assembly plant before going overseas to run a British unit that makes sport-utility vehicles. "She's a great businesswoman," says Mark T. Hogan, president of GM's e-commerce business, who worked with Trudell in GM's small-car group.

Nowhere, however, has Trudell faced the kinds of problems she is up against at Saturn. Since becoming president, her reputation has been put on the line, as she deals with both Saturn's falling sales and the botched launch of its new midsize L-Series model. An optimist, Trudell insists she isn't letting Saturn's woes get to her.

Certainly, Trudell has had her share of triumphs since taking the wheel at Saturn. Her biggest to date: cutting a critical deal with the United Auto Workers. Drawing on her earlier days as a plant manager, Trudell was key to inking an agreement that persuaded UAW leaders to support Saturn's longstanding policy for rewarding workers who meet productivity and quality targets. Union leaders, moreover, say they trust Trudell. "She doesn't always side with management," says Scott Farraday, chairman of Local 435, which represents Saturn's Wilmington plant workers.

That's good for starters. But Trudell will have to make Saturn just as popular with car buyers for her plans to pan out anytime soon.

By David Welch in Detroit

Cynthia M. Trudell

BORN 1953, St. John, New Brunswick, Canada

CURRENT JOB President, Saturn Corp.

EDUCATION BS, chemistry, Acadia University; PhD, physical chemistry, University of Windsor (Ont.), 1978

BUSINESS PHILOSOPHY "Our mission is to conquer. We'll stay true to who we are, but every company has to grow and evolve"

FAMILY Married with a son and a daughter

HOBBIES Cooking, reading business and philosophy books, and "horrible" piano playing

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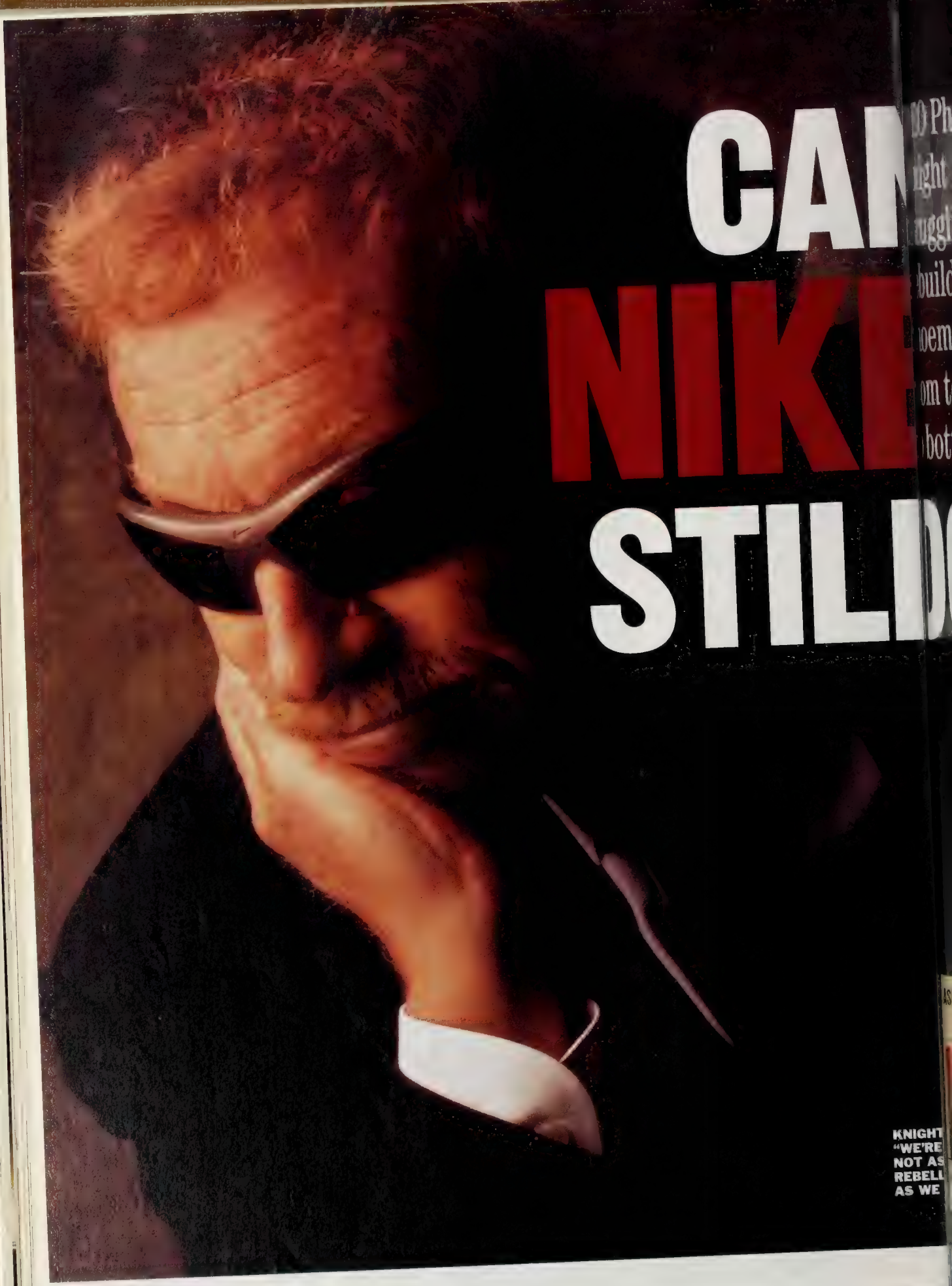

CAN NIKE STILD

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NOT AS
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DO IT?

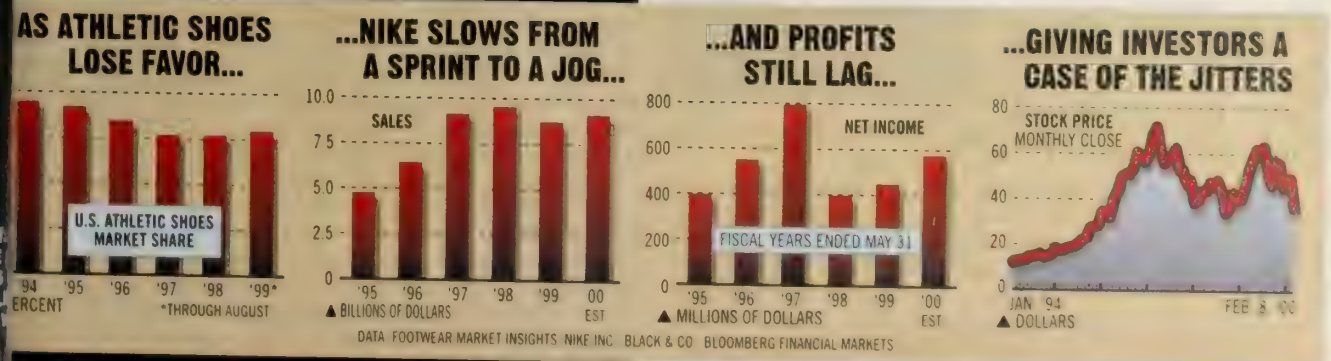
It's hard to say exactly when Nike Inc., one-time corporate brat, began to transform itself into a pillar of the community. But it may have been during a meeting in 1998, at a time when the company was under attack for allegedly exploiting overseas factory workers. Nike, in its usual maverick style, had initially tried to slough off the issue. But now, as managers argued over whether to raise the minimum age of workers in those factories from 14 to 18, Nike Chairman and co-founder Philip H. Knight ended the debate with a surprising call: Just do it.

The issue became a galvanizing force for both him and Nike. One of Corporate America's true free spirits, the brash Knight had long cultivated an aloof, even arrogant, style. When the outcry over working conditions in Nike's overseas factories started in the late '90s, he glossed over the complaints, claiming he had little control over suppliers. But as protests mounted on college campuses, Knight seemed to snap to attention. Suddenly, he was scouring the negative press coverage for errors, writing college presidents about the issue, and bringing in Maria S. Eitel from Microsoft Corp. as vice-president for corporate responsibility. "Phil made clear from the day I started that this is a huge priority," says Eitel.

The Corporation

These days, Knight is plugged into Nike's operations like never before. He has little choice. The backlash against Nike's labor practices isn't the only crisis the company faces. Two years ago, jolted by shifting teen fashions and the Asian economic downturn, sales of its sneakers and sports apparel hit a brick wall, and the hard times aren't over. On February 8, Nike told analysts that earnings this year and next would fall short of estimates because important retail chains are closing stores and the strong dollar is resulting in unfavorable currency translations. Immediately, the stock swooned 18%, to 37, lopping a stunning $2.4 billion off Nike's stock market valuation. "Investors feel that the turnaround they've been waiting for is being pushed off again," says Dana Eisman Cohen, an analyst with Donaldson, Lufkin & Jenrette. "People are losing patience."

NEW PERSPECTIVE. With that kind of pressure, Knight, the ultracompetitive former college miler who co-founded Nike 28 years ago by selling running shoes out of his car trunk, is struggling to rebuild the company from top to bottom. That's required a huge attitude adjustment at Nike's headquarters in Beaverton, Ore. Knight quadrupled sales in the '90s with a buccaneer style that had Nike thumbing its nose at the sports Establishment. This, for example, was the company that in 1994 paid $25,000 to help defend skating outcast Tonya Harding. But two years ago, Knight, 61, woke up to discover that Nike was so big that it had be-



BY ERIC HOFFMANN/BW

come the Establishment. And like a middle-aged rock-and-roller who finds himself raising a family in the 'burbs, he has had to learn to accept the responsibility that comes with age. "There are some things you can do as a $100 million company that you can't get away with as a $9 billion company," Knight explains to BUSINESS WEEK in his first major interview about Nike's new strategy. "We're not as rebellious as we were five years ago."

The Corporation

No wonder—many of the rebels are gone. Over the past two years, Knight and his No. 2, President Thomas E. Clarke, have trimmed Nike's payroll by 1,600, or 8%. At the same time, several executives identified with Nike's go-go years left, replaced by outsiders schooled at some of the nation's biggest corporations. Nine of Nike's 41 vice-presidents have worked at the company for fewer than two years, compared with just one of 27 four years ago. Three months ago, Nike hired a chief financial officer from PepsiCo Inc. Other newly minted vice-presidents have come from Disney, General Motors, and SBC Communications. Competitors say Nike needed to upgrade and deepen its management ranks. "I'm sure Nike's looking for fresh perspective, and newcomers bring a fresh perspective," says Paul Heffernan, vice-president for global marketing at Boston-based New Balance Athletic Shoe Inc.

TEAM NIKE

While Eitel is in charge of improving Nike's record on corporate responsibility, Wolfram is trying to cut production time by 30%, and McFadden is busy developing new products

The new team is immersed in the effort to reinvent Nike. Newcomers are heading initiatives that include a unit charged with reaching nontraditional markets, particularly extreme-sports enthusiasts such as skateboarders and snowboarders. Others are revamping Nike's manufacturing and logistics systems. Even the swoosh is no longer sacred. The logo is shrinking on some items and may disappear entirely from others.

The biggest change around the Beaverton campus, though, is that for the first time in years, Nike executives are taking a hard look at costs. Years of breakneck growth encouraged free spending. In the past, managers had plenty of big-picture goals but no hard budget numbers to rein them in. "Cost controls were a far second to boosting sales," recalls former marketing executive Elizabeth G. Dolan, who worked at Nike for a decade before leaving in 1997 to start her own consulting firm. Now, managers have to hold expense increases to

about 3% below rever increases. Nike also cently launched an eff to streamline manufact ing and logistics. "We gr really fast from 1994 1997, but I don't th anybody would suggest were efficient," sa Knight. "We couldn't We were just chasing growth."

That chase was brea taking while it lasted. the mid-'90s, Nike bl away competitors such Reebok and Adidas, sales exploding from $ billion in 1994 to $9.2 lion in 1997. Invest reaped a 320% increa in the stock price fr Jan. 1, 1995, to a high 75 in early 1997. But 1998, the sprinter pulled up lame. Sales plummeted in A and stalled in the U. S. For the fiscal year ended May sales slipped 8%. Even after overseas markets recove late last year, Nike's domestic sales rose a paltry 2 Now, the company has lowered sales projections for t year to an increase of just 3% to 4% from last yea $8.8 billion.

Nike's new lean focus helped it eke out a 13% increase net income last year. But hopes for a 31% gain in 2000 w dashed when Clarke told analysts that earnings would co in slightly below estimates for this year and next. He s earnings-per-share growth would be held to "at least 20%" fiscal year 2000 and to the mid-teens in 2001. Jennifer Bla an analyst at Black & Co. in Portland, Ore., believes Nike generate a net earnings increase of 28% this year, still far low the glory days in 1996 and 1997 when Nike racked gains of 38% and 44%, respectively.

TATTOO, TOO. Nike's news was especially troubling becau like other mature consumer-products companies, it counting on overseas markets to speed growth. But wit weak euro, big gains in Europe are unlikely. Meanwh Knight expects only single-digit sales gains in the U. S. the next few years. "Back in the mid-1990s, it was nirva in the U. S. That's over," says Susan Zeeb, an analyst

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Northern Trust Corp., which manages about 1 million Nike shares for wealthy individuals.

The result is a more measured, but hardly humbled, Phil Knight. He still tools around Beaverton in a black '92 Acura with NIKEMN (Nike Man) license plates and may be the only major American CEO to have his corporate logo tattooed on his ankle. And he's just as visible back at headquarters, where he still runs five miles a day. When top Nike-sponsored athletes drop by—golfer Tiger Woods, for instance, whom the company will pay an estimated $60 million to $80 million over five years—Knight is right by their side.

The Corporation

Knight may not have lost his ebullience, but his company is still in recovery from a downturn that hit it like a body blow. Starting in 1997, thousands of fickle teens suddenly switched from Nike Air Jordans to hiking boots and casual leather shoes. In 1994, athletic shoes accounted for 38% of all shoes sold in the U.S.; four years later, that had slipped to 31%, according to industry researcher Footwear Market Insights. Of course, that's still a healthy slice of the overall market, and Nike dominates the category with a 40% share. Nike's own sales slide was accelerated by its lingering association with arrogant millionaire athletes and overseas sweatshops.

Knight was blindsided by the ferocity of the anti-Nike sentiment about its overseas workers. The damage to the brand was real—and not just on college campuses. "They exploit people with what they pay as minimum wage in Third World countries," said Peter George, a runner from Melbourne, Australia, just after he finished competing in last November's New York City Marathon. He was wearing Asics shoes.

Once Knight figured out that the critics weren't going away, he abruptly changed tactics. "As part of our evolution, we've chosen to engage our critics rather than saying that they're wrong, which is my natural instinct," he says. Since Eitel came on board in 1998, her staff has doubled, to 95, one of the company's few areas of expansion. Nike maintains that it has made real progress on the issue, citing for example a lite program it started for workers in Indonesia. Even activists knowledge some basic improvements in working conditions. instance, Nike has replaced the solvent toluene, which produce harmful fumes, with a water-based cement on n production lines. Still, critics say they haven't done enou "You get the sense they're flailing around, trying to m enough changes to satisfy critics without making changes t cost lots of money," says Medea Benjamin, executive directo Global Exchange, a San Francisco-based activist group.

NOT RELEVANT. Getting Nike back on the fast track will quire a broad effort. Knight must wean it away from the Nike, sometimes literally. Last year, he carved off the par the business that makes products for extreme sports in separate unit called ACG—short for "all-conditions gear." ACG group moved into its own floor in a building away f the main footwear business and built its own staff, bud and marketing plan.

Why the separation? Nike has failed to build credibi among fans of nontraditi sports, a small but import demographic that tends originate fashion tre among teens. "To certain who are still excited ab the NFL, Nike might stil cool. But to the portion Generation Y that's indi ual-oriented and identi with these newer sport isn't relevant," says Gary Schoenfeld, CEO of Vans maker of shoes and cloth for skateboarders, sn boarders, and surfers.

Even at the Magdal Ecke Family YMCA Sk Park in Encinitas, Calif., which Nike helped to rebuil few years ago with a $100,000 donation, many kids d know that Nike makes a skateboard shoe. Some of those do aren't impressed. "Nikes aren't good at all," says year-old Jesse Satterfield, who wears Osiris shoes. "T wear down easily, and they're not comfortable."

ACG is supposed to change that. Knight put the busi under the charge of Gordon O. McFadden, a 17-year ve an of Norwegian outdoor-apparel maker Helly Hansen. F of the five top ACG executives are outsiders, hired f places like Dr Pepper/Seven Up Inc. and Fila Holding skier, snowboarder, and mountain biker himself, McFad

A WHOLE NEW RACE

How Knight and Clarke plan to get back on track

NEW BLOOD

CEO Knight is beefing up management ranks with outsiders who boast big-company experience. Not exactly rebels, recent hires include the CFO, a veteran of PepsiCo, and top marketing executives from the likes of Microsoft, Disney, and Pacific Telesis.

EXTREME MEASURES

Nike missed out on kids' flocking to extreme-action sports such as skateboarding, mountain biking, and snowboarding. Now, it's creating a separate staff to focus on those areas. And Nike is boosting advertising for products such as snowboarding boots and jackets.

WOMAN THING

As female team sports grow in popularity, Nike plans to ramp up its gear and its marketing effort. It got an early jump on the Women's World Cup soccer craze, signing up star Mia Hamm. Now, it hopes to use heroes like soccer player Brandi Chastain and track runner Marion Jones.

LEANER

Nike's head count is down 8% from two years ago, and annual costs have been slashed $197.2 million, or 8%. But Nike is also pumping $300 million into a new logistics system to get shoes from the drawing board to retailers in 12 months, rather than 18.

GOODBYE, "SWOOSH

Nike admits it overdose on its "swoosh" logo, which showed up everywhere from Texas Stadium to O.J.'s cap. Today, swooshes on som merchandise are smalle while other products are being launched with completely new logos.

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49, is developing new products, such as a $175 snowboarding jacket with a dozen pockets designed to hold such essentials as gloves, goggles, and headphones. To learn these markets, he's putting 15 or 20 designers in a studio close to the action in Southern California, the epicenter of the skateboarding and surfing worlds. And ACG will soon take the wraps off a clog-like shoe, the Rufus, that it hopes will slow the onslaught of "brown shoes," the hiking boots and other casual footwear that many young customers prefer over athletic shoes.

The Corporation

But ACG knows that cool new products alone won't solve Nike's problems: The company needs a new image to go with them. ACG plans to start its first big marketing push in June, with new print ads and in-store promotions. And starting this September, McFadden intends to open dozens of ACG stores at ski lodges and outdoor resorts. The new stores and products will bear ACG's logo: an inverted triangle with the letters ACG underscored by a swoosh. McFadden expects ACG's sales of action-sports products to grow by about 20% annually, compared with an 8% rate before the unit was given its independence. "We've got a startup mentality," says McFadden. "They want us to break rules, be the kind of renegade Nike was when Phil started."

But this isn't the '70s. To project that kind of attitude in the new millennium, a strong Internet presence is a must. Until recently, however, Nike was clueless when it came to cyberspace. But last summer, Knight invited a star-studded cast of Net-industry executives to educate Nike employees about the Web. One speaker, Novell Inc. CEO Eric E. Schmidt, recalls: "Phil got up at the beginning and said: 'I don't understand all this stuff, but it's incredibly important, and we're going to get ahead of it.'"

Now, Knight meets with his Internet team daily. Topics include ways to drive traffic to Nike.com and partnerships, such as the one with Ask Jeeves Inc., which recently added an automated customer-service feature to the site. Nike's electronic commerce site, which has been selling shoes for almost a year, was jazzed up recently to let customers choose colors and personalize them with a name or jersey number.

Nike is pushing the envelope in other key areas, too. It now takes Nike, and much of the industry, about 18 months to design and produce a shoe. Roland Wolfram, hired from SBC's Pacific Telesis unit in 1998, is trying to cut that to 12 months, and even shorter on some products. "Traditionally, Nike has relied on its product excellence and brand moxie, but we also want to have this other leg of the stool to stand on," says Wolfram.

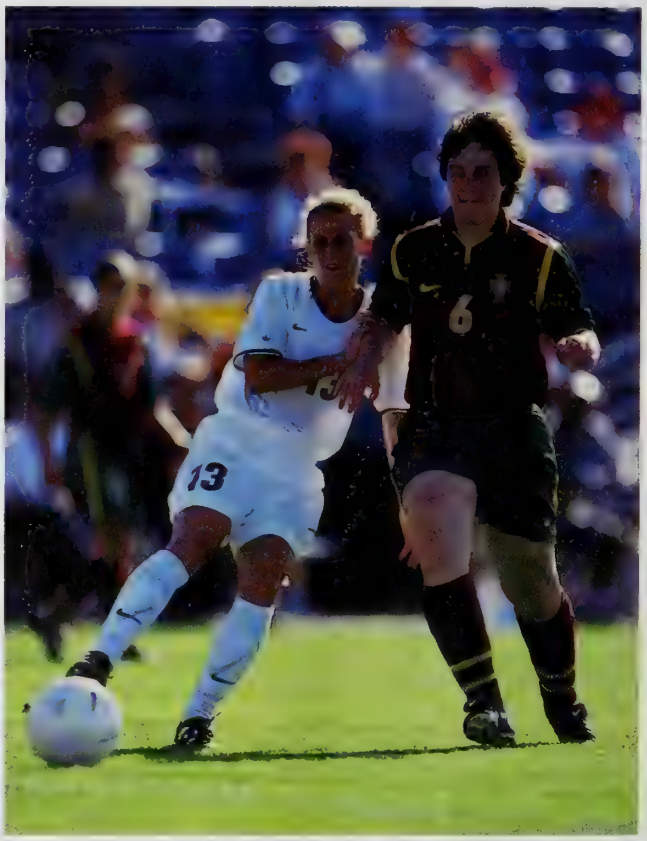
Shortening the design and manufacturing cycle has implications up and down the sales chain. Right now, Nike has place its bets far in advance of actual demand, leaving vulnerable to swift changes in fashion. Last year, for i stance, it ordered 400,000 pairs of one of its sports sand from its contract factories. But when the actual retail orde came in months later, they totaled more than a million pai leaving Nike scrambling to fill the demand.

"REAL CHALLENGE." Nike is also putting in place an automa replenishment system that ships out basic, high-volume me chandise without waiting for retailers to place orders. In t past, retailers often ran out of simple polo-style tops shorts. That hurt sales of higher-priced items like halt tops, since consumers frequently purchase basic and fashi items together. Nike is now selling $100 million of mercha dise a year through auto-replenishment. Retailers say the i provements have smoothed out many of the supply proble that dogged t company in 19 "They're deliv ing on time, son thing that was real challeng says John Doug Morton, CEO Denver-bas Gart Sports C which operat 130 apparel a equipment stor

If this soun like a more dis plined and cal lated approach doing business, is. A good part the enforceme has fallen Clarke, a 20-y Nike veteran w became preside in 1994. He h spent much of t past two years creasing financ accountabili around the com ny to make e ployees more c scious of sales performance and expenses. In 1998, N gave managers in each region—the U. S., Europe, Asia, a Latin America—their own profit-and-loss statements a now ties compensation more closely to performance.

As part of the new emphasis on financial responsibil Knight and Clarke are pounding home the need to costs. Layoffs and cutbacks have hit every area the company. Nike last year held its annual executive retr in Beaverton—a far cheaper alternative to the seaside res in the Netherlands where managers gathered a few ye back. Little things count, too, these days: In the pa Nike paid its advertising agency to assemble videos hi lighting new products for the retreat. Last year, it did t work itself.

Knight admits that his unconventional style—he w known to disappear from day-to-day operations for we at a time—contributed to his company's current predi ment. In April, 1998, Knight summoned the headquart staff to "the Bo," Nike's gymnasium named for former fo ball/baseball star Bo Jackson. There, Knight apologized taking his eye off the ball during Nike's boom years a



SCORING BIG

Nike won a big burst of publicity with its sponsorship of the U. S. national women's team (here playing Costa Rica), which won the 1999 Women's World Cup

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failing to prepare it for the rough times that followed.

Despite that mea culpa, Knight shrugs off any suggestions that the struggles of the past two years have transformed him personally. But he acknowledges that he has had to swallow some pride. "There's a fine line between being a certain size and being a bully. And we don't want to be a bully," he says. He acknowledges that creating a big-company culture "is not as much fun, but I think it's part of the evolution you've got to go through."

Knight hasn't given up hope that his company can regain its old stride. "I don't think we're middle-aged, I think we're in our twenties. I think there is great opportunity growth," he says gamely. But putting Nike back on t will require a delicate balancing act—taming the com ny's brash, in-your-face style while injecting a new sens vigor. Nike's CEO likes to point out that he has weathe other rough patches. "This is the fourth downturn in years as a public company. I said going into the 1990s t if we can get through it with only two downturns, we'll h a great decade. And I'll look forward to 2000 through 2 coming up with the same statement." That may be the good thing about slowing down as you get older—it gi you a chance to put things in perspective.

By Louise Lee in Beaverton, O

TAKE OUR SWOOSH. PLEASE

In the old days, Nike Inc. didn't have to do a lot of research to figure out what kids thought was cool. The answer was "Nike." For years, the brand was a mainstay of Young & Rubicam's annual survey of preferred labels among teens. But three years ago, it fell off the list and has yet to climb back on. Even sales of its once hot Air Jordan sneakers are down. Business at its glitzy NikeTown stores has dropped off, too. Says Marian Salzman, who heads the Brand Futures Group at Young & Rubicam Inc.: "Nike just ain't cool."

What went wrong? Nike was hurt by accusations that it fosters sweatshop factory conditions overseas. But there were basic marketing missteps, too. Lackluster ads, a series of fashion miscues, and overexposure of the swoosh all damaged Nike's image. To fight back, the company is listening hard these days to what kids say they're interested in—instead of assuming it already knows.

GEN BENDING. Take its latest TV ads, launched in January. They're a complex blend of celebrity athletes, teenspeak, and the Internet. In one, champion sprinter Marion Jones challenges viewers to a race. The camera weaves through a maze of streets and houses and winds up crashing into a man juggling chainsaws. It ends with a shot of airborne, whirring saws, a scream—and a Web address, whatever.nike.com. There, visitors can choose from among several possible conclusions, including one in which Jones punches the viewer in the nose. In another, the viewer is decapitated by a chainsaw. It's more than just an attention-getting ad: The company says the campaign has boosted online orders for sneakers. Another recent campaign features famous athletes displaying the physical costs of competition: scars, missing fingers, and knocked-out teeth.

EXTREME ADS

One ad features flying chainsaws; another, athletes' old injuries

But Nike has also figured out that national ad campaigns only go so far with younger consumers. "Generation Y wants a sense of having discovered it themselves," says Wendy Liebmann, president of New York-based marketing consultant WSL Strategic Retail. That means getting the message out through narrowly targeted sponsorships or events, like the stickball game that Nike staged last year between the Yankees and the Mets.

Nike is still doing plenty of big-ticket endorsements and sponsorships. But it is targeting some of those dollars differently. Nike's push into women's and girls' athletic gear got a huge boost from the company's support of the Women's World Cup soccer tournament last summer. The company followed up the famous image of a victorious Brandi Chastain ripping off her jersey by rolling out products such as its line of $47 "Inner Actives" sports bras. "Athletic bras that work without smashing you down," says one ad.

To combat a sense among kids that Nike is simply ubiquitous, the company is starting to use its powerful swoosh symbol more selectively. One former Nike executive recalls a meeting in early '98 where product designers and marketers scrutinized a running shoe and discovered it had at least nine swooshes. "No one had ever really counted," he says. Now, Nike CEO Philip H. Knight is looking for less obvious ways to use the logo. "If you blast it on every T shirt, every sign in the soccer match, you dilute it," says Knight. "There's more thought given to how we use it."

The biggest blow to Brand Nike has been the controversy surrounding its overseas labor practices. Top execs now take the issue seriously and have made efforts, from contests to ads in college papers, to keep kids informed of the changes they've made. Knight thinks Nike is making headway. "You're seeing a bit of resurgence with the younger consumer," he says hopefully. Now, if he can just translat that momentum into store traffic, he just might score a come-from-behind victory with kids.

By Louise Lee in Beaverton, Or

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INSIDE MOVES:

Lessons Learned in the Digital Economy

In five years, there won't be any distinction between Internet companies and traditional companies. There will only be Internet companies. Companies that can't adapt won't be around to mourn the loss.

"The Internet is that fundamental," **Halsey Minor**, chairman and CEO of CNET, told more than 500 delegate IT leaders at THE FOURTH ANNUAL BUSINESS WEEK CONFERENCE ON THE DIGITAL ECONOMY. "It's like the telephone." Indeed, the Internet has changed all the rules of the game.

And what conference participants wanted most when they gathered at San Francisco's Fairmont Hotel December 1 and 2, was information on what kind of tools they needed most to stay in this new game.

The conference focused on three strategies companies are utilizing today to reach the e-commerce summit: Pure Play, Transformation, and Integration. An impressive array of executives from companies involved in each was on hand to describe the lessons they'd learned from their respective trenches.

Riding the Next Wave with HP

Many attendees were particularly interested in how huge legacy companies planned to compete in a lean, mean, dotcom world. More than a month before the AOL-Time Warner merger rocked the headlines, one legacy chief executive had her own answer. "Legacy companies must compete on their own strengths," said Hewlett-Packard president and CEO **Carly Fiorina**.

"We spend a lot of time at HP talking about how to preserve what has made us great, and yet at the same time, we must strip away some bad habits that are very common to large, successful companies," she told *Business Week* senior editor **Kathy Rebello**, in a conference-wide interview. "A lot of those habits get in our way."

A worldwide leader in the supply of IT products and services to the consumer and enterprise marketplace, with more than $42 billion in business, Fiorina pointed out that HP is uniquely positioned at the intersections between e-services, infrastructure, and applications.

Many companies think about the digital economy from one of three places, she said, as services, as appliances, or as infrastructure. "The reality is that it is about understanding the connection between all three. There is no company in the world that sits at that intersection more successfully than HP, so we need to exploit our position and make the next wave of the digital economy very different than the last wave."

"I think almost everyone in this digital economy agrees that increasingly we're talking about a world where products are more useful if surrounded by services."

– CARLY FIORINA, president and CEO, Hewlett-Packard Company

The Consumer Revolution

As the first wave of Digital Economy ebbs into the second, it's become clear that being an Internet company means much more than having a company website. What it does mean can be summed up in two words: Your customers.

"An Internet company challenges the status quo," said Minor. "They offer the consumer a better way of doing something." Companies have to adapt with this in mind.

The Internet has changed the very concept of "firm." The vertically integrated firm no longer needs to exist, because it's now possible, indeed, even unavoidable, to disassemble all the different parts of your company's value proposition and reassemble it

as an entirely new way of delivering what your customer really wants.

Dean Hager, vice-president of eBusiness strategy at Lawson Software, put it succinctly: "e-business is about removing unnecessary people and paper from the process."

"Access, Balance, and Connectivity are what I cal the ABCs of e-business. These are the elements t we believe companies need to transform their cur business processes into e-business processes."

– **Dean Hager,** vice-president, eBusiness strategy, Lawson Software

One Brand, Two Channels

The question of the hour has become: How does a legacy company compete with a nimble dotcom?

"The key to competing in this new environment is business model innovation," said **David Ticoll**, managing director and CEO of the Alliance for Converging Technologies. "Fundamentally new models of the firm are emerging. In industry by industry, sector by sector, these new business models are destroying the old models. And organizations that can figure that out have a chance of succeeding."

Among the new innovative models in the marketplace today is the Pure Play – when a legacy company chooses to adapt by spinning off a separate Internet version of itself. Many of the most recognizable corporate names have a dotcom component these days, but some are more successful than others.

Barnesandnoble.com is a case in point. A successful retailer of the oldest order – a bookseller – Barnes & Noble was secure in its market share when along came the Internet and Amazon.com. A force to be reckoned with. It quickly decided it needed to establish an online presence, and decided to create a separate Internet company. Why this tactic? "Barnes & Noble had the money, it had the understanding of the book business, but it didn't have the key understanding of what it means to be an Internet business," said barnesandnoble.com CEO **Jonathan Bulkeley**. "Technology is core to making an Internet business run, and retailing didn't have that expertise."

Also key was the new importance of customer relationship. A retailer, traditionally, has no relationship with its customers, he said. It acquires sites, builds stores, and fills those stores with product. But it doesn't keep track of who comes in and buys books. "The Internet is fundamentally the exact opposite. It is the ultimate direct marketing vehicle."

"...consumer days are will to go with so thing they tr and go with and over aga because it m life simpler..."

– **Nancye Green** executive partner, N Region, USWeb/CK

There is constant cross-pollination between Barnes & Nobles bookstores and barnesandnoble.com customers. The upside potential is huge. "The Internet bus ness does not cannibalize retail," sai Bulkeley. "This is not about stealing from one channel, this is about addi value, and having multiple channel to deal with a customer."

Today barnesandnoble.com is the fourth largest e-commerce site in the world in terms of traffic. But it hasn't been without a fight. Barn & Noble invested $100 million to create barnesandnoble.com, which exacted a real hit on earnings for two years in a row.

"Brands are very much alive," said **Nancye Green**, executive partn Northeast Region, of USWeb/CKS. "But they have to be more expansi They have to really have a relation ship with the consumer. In the old days, we thought the brand was really about the logo, the image. Today, you really think about how brands are going to migrate over a whole lot of different media."

Give Users What They Want – Not What You Have

Halsey Minor, chairman and CEO, CNET

Back in the early 90s when e-commerce was in its infancy, **Halsey Minor**, the chairman and CEO of CNET, listened to a lot of naysayers. He and other early players such as Yahoo and E-Bay were repeatedly told that they'd be crushed by the old-world media empires as soon as the market was worth their trouble to enter. They were told they were nothing more than place markers on the Internet.

Halsey and others have had the last laugh. Instead of being crushed by brick and mortar regimes, it is the traditional corporation that is running scared in the face of the Internet-powered economy.

"Now the debate has changed," Minor told participants of The Fourth Annual Business Week Conference on the Digital Economy. "Now the question is, why are big companies having such a hard time competing with you guys?"

Minor knows why. "There's a wonderful advantage that you have when you essentially have a clean slate. Because you ask yourself a fundamental question: What do people want? Large companies tend to ask themselves, what do we have that we can give users? "It's probably one of the single-biggest challenges that big companies have when approaching the web."

ultiple Systems or an Integrated Global One?

RRY ELLISON,
nder, chairman,
l CEO,
acle Corporation

In **Larry Ellison**'s world, adapting to the Internet economy is really so simple. Lose your costly systems and replace them all with one global, Internet-based system, and you, too, can compete with the dotcomers.

This from the founder, chairman, and CEO of Oracle Corporation, the leading supplier of software for information management. It's hard to be a visionary sometimes.

"Using the Internet isn't simply about producing a fantastic front end to your existing suite of systems," said Ellison. Indeed, the client/server concept of systems has never worked and will never work. The system of the future will be a comprehensive global system that runs on the Internet.

you keep buying best of breed, and gluing it all together, you're never going to be e-business," he said. "Because the guys who are starting from scratch don't have y of these costs or burdens."

'e feel the growth related to the data-availability side of our business will be just as significant, if not more significant, than the data-protection owth has been for us in the past." – **LOUIS C. COLE,** chairman, president, and CEO, Legato Systems, Inc.

e Right Tools for the Job

American business lurches into Internet age, many have strug- l to keep up with the huge 'eases in data. Other companies e risen to meet the challenge. egato Systems made its name lata protection. With a surge in ers trying to contain the explo- ı of data generated by the Internet e-commerce, the company saw own future and shifted its market. ording to industry numbers, three es the amount of storage shipped 998 will be shipped in 1999.

'The reality of the Internet is that re's no time for downtime," said **ıis Cole**, chairman, president, and O of Legato Systems, Inc. "This n environment where data and lication have to be available 24 ırs-a-day, 7-days-a-week. There's room for error."

'he company saw a need in the rketplace to extend well beyond at it had already accomplished in a protection and moved quickly data and application availability. ·ough a series of strategic acquisitions, it transformed itself into a leader in information management. By staying consistently ahead of the technology curve, Legato has seen its fortunes soar.

"The growth related to the data-availability side of our business will be just as significant, if not more significant, than the data-protection growth has been for us in the past," said Cole.

Bricks and Mortar

Bricks and mortar still matter, and they matter in a big way. When integrated with a strategic e-commerce plan, the established systems, finances, and reputation of a legacy firm can help ensure online success.

What kind of systems-related challenges face a legacy company when it tries to web-enable its traditional customer data sources? The trick is not so much a technical one as a change in perception, said **Roger Siboni**, president and CEO of E.phipany. "You've got to change your orientation to understand that the most important thing is your customer and not your traditional distribution silos." Siboni, who left a long career at KPMG Peat Marwick to lead in the dotcom world, delights in being able to point to exactly what kind of cost savings this entails. "It costs about 14 percentage points of profit to sell to a customer through a traditional two-tier distribution channel. But if you can migrate that customer to a web channel, then it's only 4 percentage points of cost to get a product to that customer."

"I personally believe that customers will demand that they get the option to tell you what kind of information and access they want."

– **ERIC SCHMIDT,** chairman and CEO, Novell, Inc.

What's Coming Up Next?

There's a lot of innovation going on out there. A lot of legacy companies as well as feisty start-ups are busy creating the next generation of systems and tools to keep the Internet engine running smoothly.

"We talk a lot about this nomadic and mobile world," said **Eric Schmidt**, CEO of Novell, Inc. "We have technology now that lets you to see your entire world through what's called encrypted tunnels, where literally we have a secure connection through all

"The biggest challenge is not one of technology, it's one of changing your orientation to understand that the most important thing is your customer, and not your traditional distribution silos."

– **ROGER SIBONI,** president and CEO, E.piphany

"...today's IT managers are looking for solutions, and with constrained resources, the solutions have to be the most cost-effective that they possibly can be."

– **Jim Bartlett,** corporate vice-president and chief marketing officer, StorageTek

the different firewalls all the way back to your home base. That model has been missing for a long time, and we just now have all the pieces, within Novell and the industry, to pull it off."

Keeping Up with the Internet

With the explosion of data from e-commerce and other Internet-sparked business applications, the question has been raised whether the Internet itself is up to the job. Absolutely, said the experts. The problem has never been one of technology not keeping up, but of companies keeping up with technology.

Whether there will be enough IT workers out there to power the machine is another matter. "The shortage of skilled workers in the corporate IT sector is now estimated to be in excess of 500,000 in the U.S. alone, and it's growing," said **Jim Bartlett**, corporate vice-president and chief marketing officer of StorageTek. "This isn't a local problem, either. It's a global problem."

At the same time, in the rush to push the technology envelope, IT creators should not lose sight of the fact that systems need to be started with their own obsolescence in mind.

"In this Internet age, we need to make sure IT is not a disabler," said **Dr. Kenan E. Sahin**, president of Kenan Systems, and vice-president of software technology of Bell Labs. "Software must be modular, upgradeable, and ultimately, replaceable to sustain the innovative engine. These are very important software system concepts that I don't think are widely practiced. I urge us to think small (miniaturization) in software systems so that we can accomplish big things, much like microelectronics advances have led to the explosion of electronics."

There's nothing small about the challenges ahead for American businesses. But as any executive who's been there and done it can attest, it's sometimes the small changes in perception that lead to the biggest victories in the Digital Economy.

"I urge us to think small (miniaturization) in software systems so that we can accomplish big things, much like microelectronics advances have led to the explosion of electronics." – **Kenan E. Sahin,** president, Kenan Systems; vice-president, software technology, Bell Labs

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Conference Poll Results

Results of anonymous polling of more than 500 delegates at The Fourth Annual Business Week Conference on the Digital Economy. Each had access to a keypad and was able to answer each of the questions asked during the conference.

During the past 6 months, my company...

has created our first e-business strategy.	22%
took our successful e-business strategy and revised it significantly.	23%
took our unsuccessful e-business strategy and revised it significantly.	8%
abandoned an unsuccessful e-business strategy and are now developing a new one.	3%
has continued running a successful e-business strategy implemented earlier.	16%
has still been just thinking about our options, and has not yet launched an e-business strategy.	28%

Investment in Customer Relationship Management Systems

Like Delta, we have made huge investments in CRM.	25%
We are planning to make a huge investment in CRM.	17%
We are thinking about maybe making a huge investment in CRM.	22%
We have decided against a huge investment in CRM	7%
We have not yet considered buying these technologies.	29%

Yesterday, Larry Ellison told us that client/server and traditional ERP have never worked and can never work. He also said that enterprises need a single, global, integrated, Internet-based enterprise data management environment.

What do you think?

This may be self-serving vendor hype, but he's right.	58%
He's wrong. There are other options that can solve the problem just as well.	42%

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BusinessWeek
EXECUTIVE PROGRAMS

MS

AN BOLLYWOOD EAT THE MOB?

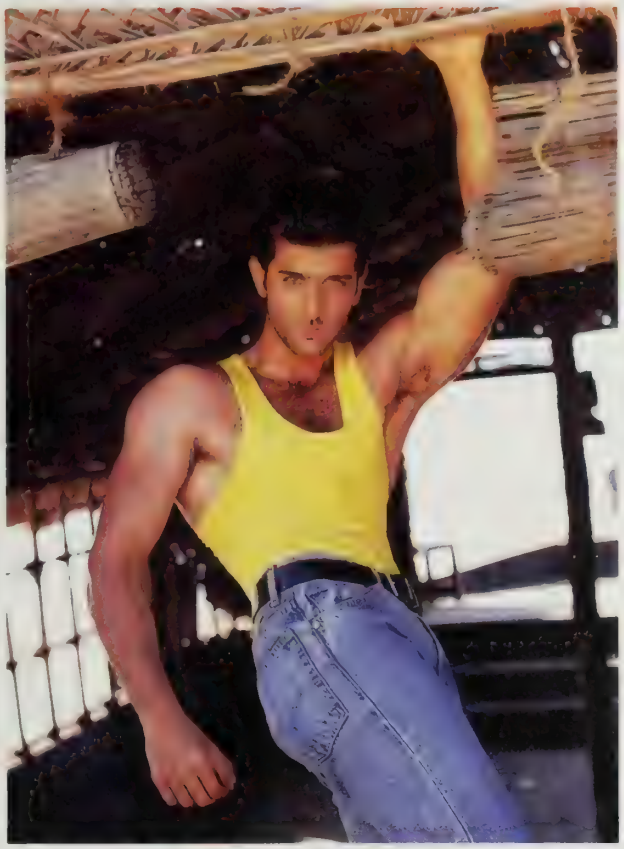
nbay filmmakers try to ak from organized crime

he smash hit film of the season in India is *Tell Me It's Love* (*Kaho na, pyar hai*). This hothouse romantic na stars Hrithik Roshan, whose chis- features, green eyes, and impres- physique have made him India's nee idol of the moment. The film's a ly affair, too: The flick is directed Roshan's dad, Rakesh Roshan, a for- movie star himself.

ut this Bollywood success story has uesome side to it. Soon after the started playing, members of Bom- s underworld demanded extortion ey from Roshan's father. He re- d—and got shot on Jan. 21 as he his office. The senior Roshan sur- d, but Bollywood—as India's film ld is called—is in terror. If the gov- nent doesn't crack down on the erworld fast, local producers threat- o move their business away to safer les such as Hyderabad in the south. he attempted rubout is the latest of Bollywood's struggle to shed an avory past and secure a more legiti- e future. India's studios churn out movies a year and take in almost) million in box office revenues— nuts by Hollywood standards, but money in the Subcontinent.

ARDOUS WORK. Yet for years, In- s left-leaning governments wouldn't nt moviemaking official status as a timate industry, which means banks ised to lend to producers. So movies e either bankrolled by rich mer- nts or by the underworld, ch lent at usurious rates up to 50% and demanded ft repayment, even if a film ped. Understandably, orga- ed crime's debt-collection niques were nasty, and the of film producer in India proved hazardous indeed ble). No wonder Bombay's ducers were ecstatic when government last year nted official industry sta- to the film business, quali- g the studios for legitimate k loans and, eventually, tax cessions.

he mobsters are not giving up that easily. The loan-shark business may be drying up, but plain old extortion still looks like a good bet. And there's more money to extort, now that Indian films are finding new customers and profits overseas. The 20 million-strong expatriate Indian community can never get enough of these Indian pix. Non-Indian audiences in the Middle East, Africa, Eastern Europe, and even Japan have also acquired a taste for Bollywood's zesty menu of dramas, thrillers, and musicals. In all, says Amit Khanna of India's Film Producers' Guild, India earns $100 million in film exports annually, a figure that's growing by 50% a year. So the gangsters, many of whom live and operate overseas, are now especially targeting foreign receipts when they lean on Bombay's producers.



STAR OF INDIA Hrithik Roshan's new film attracted crowds—and extortionists, who shot the actor's dad

Bollywood's producers may yet find an ally in their fight with the underworld—Hollywood. Sony Columbia TriStar, Universal, Warner Bros., and Twentieth Century Fox are looking to distribute and even produce Indian films. These companies won't say which deals they are cutting. But industry analysts say the L.A. studios are talking with successful film figures, such as comedy producer David Dhawan, Sanjay Bhansali, a maker of musicals, and Vidhu Vinod Chopra, who's known for his thrillers. Hollywood wants to distribute and produce Bollywood films both for Indian and foreign audiences. At the same time, inking Bollywood deals may uncover directing and acting talent that Hollywood could tap for its own U.S. productions.

WATCHDOGS. Obviously, Hollywood isn't doing all this to crack down on Bombay's hoods. But Bollywood tycoons are hoping that a strong tie-up with Hollywood would have the side benefit of limiting the gangsters' room to maneuver. A fully professional, U.S.-run distribution network, complete with high-powered lawyers and accountants to act as watchdogs and backed by legitimate financing, might prove a lot more resistant to extortion than would some Bombay producer acting on his own. "If the Hollywood boys come in and provide confidence, it'll be O.K.," says Ravi Gupta, director of Eros International, a Bombay distribution house.

Whatever happens, erasing the mob's influence in Bollywood will still take years. Officials are promising action. But jaded film wallahs wonder how many local politicians and police officers are involved with the mob. It's an unsavory tale—and it's not just happening in the movies.

By Manjeet Kripalani in Bombay

THE KILLING SPREE IN BOMBAY

JUNE, 1997 Mukesh Duggal, film producer, shot to death in a Bombay suburb.

JULY, 1997 Rajiv Rai, director, escapes attempt on his life. Leaves India.

AUGUST, 1997 Gulshan Kumar, producer, killed outside a Bombay temple.

DECEMBER, 1997 Manmohan Shetty, producer, escapes murder attempt.

JANUARY, 2000 Rakesh Roshan, producer and director, shot but survives.

DATA: BUSINESS WEEK

MONETARY POLICY

RIDING THE NEW ECONOMY

The ticklish task for Greenspan, Summers, and other policymakers: how to rein in this buckin' bronco without stopping it dead

If ever there was a time when policymaking was simple for the Federal Reserve, this is surely not it. Faced with a supercharged economy, sky-high stock markets, tight labor conditions, and incipient fears of inflation, Fed Chairman Alan Greenspan has tried since last June to rein in the galloping U. S. economy.

But a funny thing happened on the way to the slowdown. Not only is the economy refusing to cool, it's actually charging ahead. And to further muddy the picture, the astonishingly strong productivity numbers reported by the Labor Dept. on Feb. 8 have emboldened critics who say the Fed should not continue to raise rates. For now, there's precious little evidence of inflation in sight.

Call it the revenge of the New Economy. Things are so good these days that policymakers, such as Greenspan and Treasury Secretary Lawrence H. Summers, face a new set of challenges posed by prosperity itself. Not the least is that the high-flying stock market has somewhat weakened the Fed's ability to influence the economy through the traditional lever of interest rates. And that is making the Fed's already tough job of striking a balance be-

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A bold Fed move could trigger a stock market crash, throwing the economy into recession

tween growth and inflation even tougher.

For now, the economy and the markets are continuing to barrel ahead. The economy added 387,000 jobs in January, sending the unemployment rate to 4.0%, its lowest rate in 30 years. The gross domestic product grew at an annual rate of 5.7% in the third quarter of 1999 and 5.8% in the fourth quarter, well above what's generally considered a sustainable pace. Meanwhile, the Nasdaq Composite Index has nearly tripled in the past 18 months. Consumers, sitting on big capital gains, are borrowing and spending with nary a thought of tomorrow.

TROUBLE TRIGGER? In more ordinary times, the primary thing that policymakers worry about when growth is rapid is that bottlenecks in the supply of labor, raw materials, and other inputs will cause inflation to rear up. That's still a big concern. But today, Fed insiders are equally worried that the stock market—revved up by the successes of the New Economy—could be the trigger for trouble. If sentiments suddenly shift, a stock market crash could tip the economy into recession. And if the Fed manages to stave off that fate by flooding the economy with money, it could ignite the very inflation it has been working so hard to avoid. Scary.

Even plainly good news, such as soaring productivity growth, presents perplexing questions. On Feb. 8, the Labor Dept. announced that output per hour of work had grown at an annual rate of 5% in the fourth quarter—an increase in efficiency so large that unit labor costs actually fell at an annual rate of 1%. Great, right? Yes, but it points to the dilemma facing the Fed: How can it publicly justify raising interest rates when inflation doesn't appear to be breaking out?

Good times, it seems, can be as tricky to manage as bad times. In order to know how to manage the economy, it's important to know why it's growing so rapidly in the first place. Some of the GDP strength was temporary, including a surprise yearend jump in defense spending and precautionary inventory-building by companies worried about supply disruptions from the Y2K computer bug. But much of the oomph came from consumers who had seen their stock portfolios swell. Greenspan reckons that higher stock prices have boosted growth by a full percentage point each year since late 1996 by encouraging consumers to spend more and companies to increase investment with funds raised on Wall Street.

In an effort to slow down the economy, the Fed has lifted interest rates by a quarter-point four times in the last seven months and is poised to increase them further in the months ahead, starting with its next policymaking meeting on Mar. 21. But so far, the effect on the economy has been limited. The housing market has shown signs of plateauing in response to higher mortgage rates, but it is not declining. The auto market—another interest-rate-sensitive sector—racked up its strongest sales in five months in January.

Why haven't the hikes had more of an effect? For starters, they've been modest. Three of the Fed's four rate hikes just made up for the hurried cuts it made in 1998 to avoid a global financial meltdown. In addition, consumers feel free to borrow and spend, even if it costs them a bit more to do so. The Fed said Feb. 7 that consumer credit surged 7.6% in 1999, the biggest gain in three years. "Americans continue to feel wealthy," says Richard B. Berner, chief economist at Morgan Stanley Dean Witter.

Nor are companies feeling much o a pinch, in part because of the pr payoff from the productivity boom. L ell Gordon, controller of Electronic vironments Corp., a Canton (Mass.) e trical construction and service busin believes his customers have shrug off the rise in rates so far. That's e truer in Silicon Valley, where fe companies rely on bank loans. "We our cash from the equity markets," s Randall Bolten, chief financial office BroadVision Inc., a fast-growing R wood City (Calif.)-based maker of s ware used to set up e-commerce sit

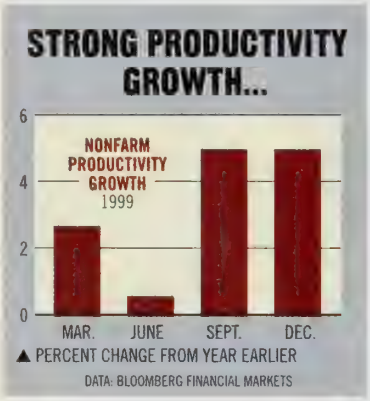
Across the economy, banks today a smaller role in credit creation t ever before. Their share of total credit market lending has fallen fr 63% in the 1970s to around 32%, cording to an an sis of Federal serve data by Dismal Sciences West Chester (economic consult firm. That means Fed's lever over economy—throug interbank lend rates—has lost so effectiveness.

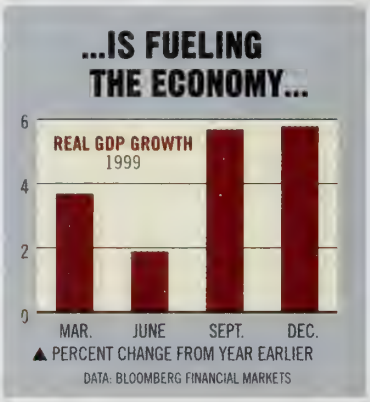
JUICED-UP ECONO Meanwhile, gains the stock mar continue to juice up the economy— the Fed has little direct influence o stock prices. While the Dow Jones dustrial average and Standard & Po 500-stock index have slowed their cli the Nasdaq has soared by 64% si the Fed started to tighten.

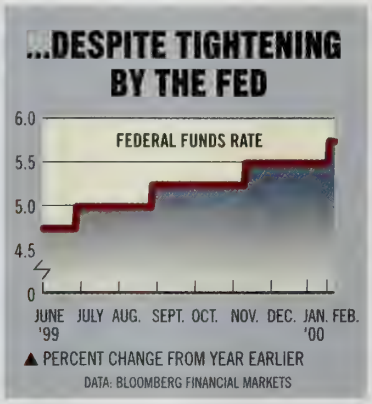
One way higher rates usually q inflation is by strengthening the do making imports cheaper. But even t mechanism is weakening as curre traders focus on equity flows more t rates (page 138).

Why doesn't the Fed act to ra rates more sharply? It's worried t making such a bold move would trig a stock market crash that would th the economy into a recession. "It's t ing to feel its way to the right stanc monetary policy," says Columbia U versity economist Frederic Mishki former New York Fed research direc

As important as knowing what







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*Based on responses to the August 1999 Customer Satisfaction Survey directed to customers with fully deployed Siebel eBusiness Applications. Calculations derived from all respondents who volunteered quantitative impact estimates in at least one of the above categories.

worry about is knowing what not to worry about. One thing to take off the worry list is the widely discussed notion that the retirement of the federal debt undermines the Fed's ability to set monetary policy. It's true that the yield on the 30-year bond recently fell as low as 6.13% because of concerns about scarcity, at the same time the Fed was trying to push up short-term rates. But Fed officials note that the fall in Treasury yields was not matched by a decline in mortgage rates or corporate bond yields, which matter more to the real economy. "Treasuries have been in a world of their own," says veteran Fed watcher Louis B. Crandall of consultants R.H. Wrightson & Co.

The problems of prosperity are the kind that other countries would love to have. But that doesn't make them any easier to solve. They're more difficult—because they've never been faced before.

By Rich Miller and Laura Cohn in Washington, with Peter Coy in New York and Robert D. Ho in San Mateo, Calif.

THE CURRENCY GAME HAS BRAND-NEW RULES

It's not every day that you can see just how currency markets work in the New Economy. Feb. 3 was one such day, though. When the European Central Bank hiked euro zone rates a quarter point at 11:30 a.m., the euro defied convention and dropped against the dollar. But when news emerged later that British mobile giant Vodafone AirTouch PLC was about to prevail in its $183 billion takeover of Germany's Mannesmann, the euro advanced nearly 2.5 cents against the dollar to 99.5 cents.

The euro's big move was the most striking indication yet that foreign-exchange traders are following new clues in determining whether to invest in a currency or not. For as long as anyone can remember, a central bank's move on interest rates dictated a currency's strength and directly affected foreign investors' appetite for sovereign debt. "The smart money used to play these rate differentials via bonds," says Alfonso Prat-Gay, currency strategist at J.P. Morgan & Co. in London.

Thus, in the early and mid-1980s, record-high interest rates attracted billions in foreign capital to U.S. Treasuries, and the dollar soared. Sure, long-term trends in a country's economic health and investment history eventually asserted their influence. But over the short haul, rates mattered most to the traders.

TRANSFORMATION. In the last twelve months, though, traders have latched onto other factors in their daily game of fixing a currency's value. Today equity flows from stock investments in foreign countries and cross-border merger deals are increasingly important. "There was a major transformation of the foreign-exchange markets last year," says Jim O'Neill, chief currency economist at Goldman, Sachs & Co. in London. "Equity has taken over."

Thus traders at their desks pore over the merger news now with as much alacrity as they follow the dictates of a Greenspan or a Duisenberg. The thinking: If foreign companies look set to pull off major takeovers in a market, they will drive up demand for the currency—a forex buy signal if there ever was one. And traders can play the deal-driven surge in currencies by taking long positions in the currency they think is about to pop.

The impact of deals and stock prices on currencies became powerfully apparent last year. The Bank of Japan has been keeping interest rates close to zero for months, hoping to revive the economy. Those low rates would argue for a weak currency. Instead, the yen has strengthened since May, 1999, from 124 to the dollar to about 109 now. That's because traders chose to ignore Japan's low rates and focused instead on stocks and deal news that showed a surge of foreign investors coming into Japan.

The opposite effect has occurred in the euro's case, where strategists such as O'Neill say the new foreign-exchange game accounts for much of that currency's 17% decline against the dollar last year. When the euro was launched in 1999, investors and even the Continent's own executives were still down on the region's economy and far more attracted to deals and portfolio investments in Japan and the U.S. So while the euro zone ran a $60 billion current-account surplus, its companies spent some $120 billion on mergers and other direct investments elsewhere, driving down demand for euros.

Look at Japan. Its low rates would argue for a weak yen. Instead it has been surging

Now traders tracking equity flows think the time may be coming to go long on the euro. The Vodafone-Mannesmann deal could trigger a slew of cross-border takeovers in Germany and France, and lure record amounts of yen, dollars, and sterling into the region. Officials of the European Central Bank, of course, get to keep their jobs. But maybe the deal artists can give them a little hand.

By Stanley Reed in London

Customer Appreciation Yields Stock Appreciation

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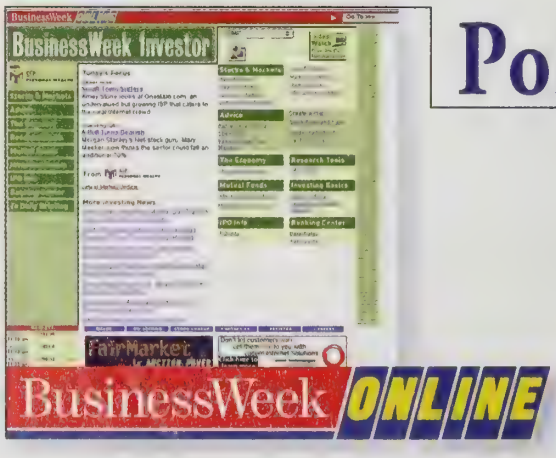

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ACCOUNTANTS

CREATIVE ACCOUNTING AT CENTURY?

DeGroote's results may be inflated

Under Canadian tycoon Michael G. DeGroote, Century Business Services Inc. has quietly grown into the seventh-largest U.S. accounting firm—and one of the few to be publicly held. Century has expanded by acquisition, snapping up small to midsize partnerships and business-service firms. It seemed like a smart strategy, and a familiar one: DeGroote had made his fortune consolidating waste-management and transportation companies into Laidlaw Inc., a Hamilton (Ont.) conglomerate he exited in 1990, after selling his stake for $500 million.

Century's reported revenues nearly tripled in 1997, and they doubled in 1998. But critics have long criticized the company's business model, and short-sell-

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have been sinking f
a high of $25¼ in Aug
1998. Four months ago,
Groote hired Merrill Lyn
Co. to help it find a buyer, w
insisting revenues were strong
Now it seems the naysayers ma
right. On Dec. 28 the company sai
would revise one of its more controve
accounting methods, after advice f
the Securities & Exchange Commiss
Net income will be reduced in 2
by $16 million.

On Jan. 31, Clevela
based Century

ed that fourth-quarter earnings be much lower than expected, from 12¢-to-14¢-a-share estimates to –2¢. What's more, the company ted a "downward revision" of 2000 sts. President and Chief Operating r Fred M. Winkler unexpectedly ed the same day.

the questions that have been raised arting the reputation of Century-l firms, industry watchers say. "It's ounting company that's in trouble ts accounting," says Rick Telberg, of *Accounting Today*, a New York thly. "There's nothing more emssing to a CPA or more damaging in ketplace." The company denies any prieties.

ntury's story is an example of a ny that grew too fast, promised uch—and, if some critics are cornay have used aggressive account- bolster earnings. It's also not the time DeGroote has been under ny.

E INFO. Months after DeGroote left w, the company posted an unexl earnings warning. In April, 1993, ntario Securities Commission filed gainst DeGroote, controlling Laidhareholder Henri Herbots, and st Overseas Ltd., alleging the shorted Laidlaw stock on insider ledge that the company would repoor earnings. The group paid an million settlement to the commisalthough members maintained that were innocent and hoped to avoid ded litigation.

Groote founded Century Business 96, by merging Republic Environal Systems, a Bluebell (Pa.) hazs-waste-disposal company, with Cen-Surety Group, a Cleveland insurer. arted buying up accounting, payroll, benefits companies in the U. S. at a clip, purchasing more than 100 in ears. The highly fragmented busiservices industry seemed to be begor consolidation. In the fall of 1998, s began to emerge, including Off Street Consulting Inc., a Cambridge .) research firm that is an active -seller. The company's strategy was d, Off Wall Street said: Century's sitions were not concentrated gh to encourage -selling. In ion, it charged, Century Business was exaggerating its earnings by recording revenue from acquired companies before the deals were closed. As a result, said Off Wall Street in an October, 1998, report, Century "provided an upside [earnings per share] surprise relative to consensus expectations...an important ingredient for keeping a high-flying growth stock aloft."

The claim was "off the money," according to Charles Hamm, Century's chief financial officer. He admits there was "one unique situation" concerning a January, 1998, acquisition in which Century accounted for an acquisition before the deal was technically closed, because the bought-out shareholders were negotiating how to split up the money.

A shareholder class action filed against Century in September, 1999, by Boca Raton (Fla.) firm Shepherd & Geller takes things a step further, charging that the company was misrepresenting earnings by reporting revenues based on projected growth, not on historical fact. It also charged that insiders were profiting from the misrepresentation by selling "artificially inflated" shares. Century says it is reviewing the suit.

Another bone of contention has been the company's method of amortizing goodwill—the way public companies account for purchases when the price is above book value. From 1996-98, when Century made such purchases, it spread the goodwill over a 30-year period. After that, it increased the amortization to 40 years. Most of Century's business peers spread goodwill from accounting-firm purchases over just 15 years. Century's longer-term accounting for its acquisitions tended to raise earnings.

On Dec. 28, Century said it would shorten the period from 40 years to 15 on advice from the SEC. The company's fans on Wall Street remained loyal, though: Merrill Lynch, Tucker Anthony, and First Analysis maintained their positive ratings.

That changed on Jan. 31: Century's earnings warning caught the Street unaware. Tucker Anthony Cleary Gull Inc. analyst Gary Prestopino says he had a mid-January meeting with Winkler, in which he was told that the company was running smoothly despite its dropping stock price. "They weren't dealing straight with the Street, and it's to their detriment," Prestopino says. On Jan. 31 he lowered his ratings on the company to "reduce." Prestopino has lowered his 2000 earnings estimate from 70¢ a share to 37¢, but said he has a "low level of confidence" in the number because of lack of guidance from the company. Merrill Lynch's Fran Bernstein lowered her rating to "neutral" on Jan. 31.

Former President Winkler said he met with Prestopino but gave him no indications about future numbers. "He was told he should make his own evaluations." Winkler said it was his decision to leave Century but was "not prepared to talk about why."

For his part, DeGroote blames the earnings shortfall on a vicious cycle of low stock prices causing poor morale causing low stock prices. There has been "too much stock-watching" on the part of Century employees, who were "worried about their hide" because the company was up for sale. "Twenty percent of the shares are held by our people in the field," says DeGroote. "They were losing their own net worth." Apart from that, DeGroote has little to say about the earnings troubles, maintaining the company is "still wrestling" with the reasons for the shortfall.

SCRAMBLING. Observers have their own explanation. They say Century's business strategy hasn't worked. "They've been unable to develop a national platform to integrate their practices," says Jay N. Nisberg, principal at Jay Nisberg & Associates, a Ridgefield (Conn.) accounting industry consultant.

Naysayers are now drawing attention to Century's figure for "days sales outstanding" (DSOs). This number, which represents the days between when a bill is booked as revenue and when it is actually paid to Century,

MICHAEL G. DeGROOTE

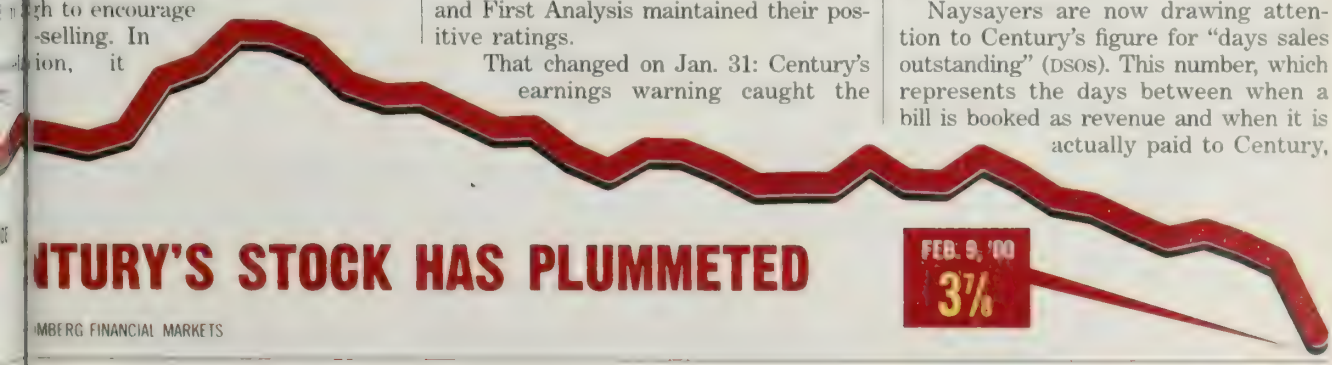
BORN: Belgium, 1933

EDUCATION: No college

PRESENT HOME: Bermuda

BUSINESS CAREER: Buys Laidlaw, a 48-truck company in Ontario, in 1958. Acquires hundreds of trucking, bus, and waste- management companies. Sells his stake in 1988 for $500 million, stays on as CEO until 1990. Buys Republic Waste Industries. Turns over control to Wayne Huizenga in 1995. Starts Century Business Services in 1996.

DATA: BUSINESS WEEK



has risen steadily—from 74.8 days in the fourth quarter of 1998 to 125.8 days in the third quarter of 1999. This means that, during the third quarter, Century Business booked as revenue accounts that wouldn't be paid until four months later, possibly into the next year.

A rising figure for DSOs is generally taken to be a sign that management is scrambling to meet the numbers, shorts say, and will eventually catch up with the firm.

CROSS-SELLING. Hamm of Century Business admits that the number is high, but he says there's no manipulation at work. "We've publicly said that one of our biggest challenges is improving our billings and collections," he says. "We're trying to dramatically improve."

The company's cross-selling strategy has been slow going. Firms that Century has bought up are loath to refer longtime clients to other Century offices, saying they don't know them well enough. "I just met these companies a year ago," said one accountant at Century. "People will go as fast as they feel comfortable."

The company is facing stumbling blocks that are common to consolidators, said Susan Lacerra, a Jeffries & Co. analyst who lowered her rating on Century Business last year from "buy" to "accumulate." Lacerra says the company needs to shift its focus from acquisitions to operations.

The principals at companies that Century has purchased, most of whom watched their net worth plummet as the value of the company's stock fell, are critical of some of DeGroote's decisions. Putting the company up for sale was a big mistake, they say. Outsiders agree. "They've bought up a lot of great firms," said Gary Shamis, managing director at Saltz, Shamis & Goldfarb in Solon, Ohio. "They just need to find someone to run the company."

DeGroote still says he's convinced that the business model works. "We still think it isn't broken," he said. "My main goal is to reenergize the troops." Although he splits his time between his home in Bermuda and Century's Cleveland offices, DeGroote insists he is a hands-on manager. "When I'm not on the ground in Cleveland, I am on the phone no matter where I am, from 8 a.m. to 8 p.m. I've never worked harder in my life." He'll need to do that to get the company back on its feet. And hiring a good accountant might not be a bad idea, either.

By Heather Timmons in New York

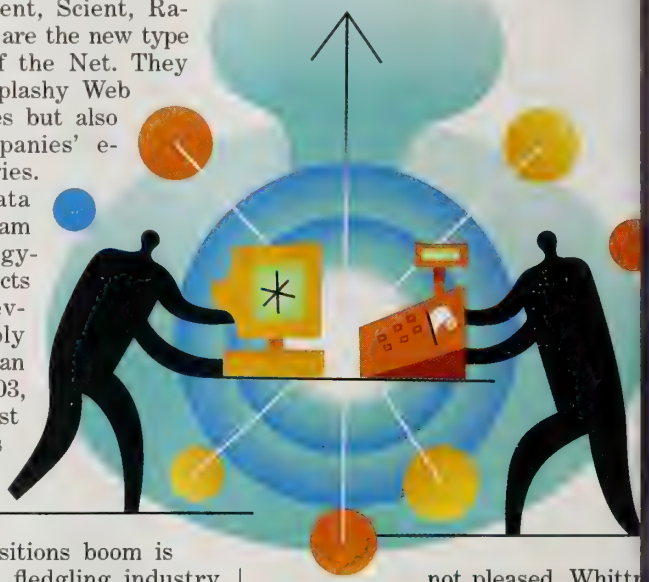
IPOs

THOSE SEXY CONSULTANTS

As they prosper and merge, Net advisers are a hot play

Luminant Worldwide Corp.'s downtown Manhattan office has the buzz of an Internet startup. The spacious loft in New York's Silicon Alley is packed with casually dressed twentysomethings manning the computers and phones. Luminant isn't really a Net company, but rather one of a fast-growing breed of consultants offering Web services to businesses.

Luminant and rivals such as iXL Enterprises, Sapient, Scient, Razorfish, and USWeb are the new type of foot soldiers of the Net. They not only design splashy Web sites for companies but also develop the companies' e-commerce strategies. International Data Corp., a Framingham (Mass.) technology-research firm, expects the industry's revenues to multiply tenfold, to more than $78 billion, by 2003, from $7.8 billion last year. With stats like that, it's not surprising that a mergers-and-acquisitions boom is under way in the fledgling industry. Dozens of small companies are trying to reach the critical mass needed to serve huge corporate clients.



MOON SHOTS. Wall Street is ecstatic over the Internet consultants. Last year, 14 went public, and some 10 are scheduled to do so this year. Many have price-to-revenues multiples in the 15-to-30 range, giving them market values of $1 billion to $5 billion. That's compared with traditional technology consultants, who have only two to four times price-to-revenues multiples. The stocks of these Internet consultants have been moon shots, averaging more than a 100% appreciation over the last year. And these young companies are gearing up for the next e-commerce revolution: business-to-business strategies. "They're targeting a market growing four times faster than traditional [information technology] consultants," says Dirk L. Godsey, a s analyst at Chase H&Q.

High-price stock is a key eleme the merger frenzy. USWeb Co., fo ample, had made more than 40 acc tions since it was founded in 1996, mostly stock. But sometimes, the m ers take place even before the com goes public. Luminant is a case in p Eight separate companies were r together for its initial public offeri October. Suddenly, a bunch of sma gional players became an 800-empl company with national scope, with mer Westinghouse Chief Execu Michael Jordan as chairman of board.

However, when USWeb, on Dec announced a merger with the t tional IT consulting firm Whittman- Inc. to create a company with a billion market the Street not pleased. Whittm Hart's stock is down 50%, to 40½, s the deal was announced, and USWeb down 34%, to 33 7/16. "The market is very interested in firms focused this industry," says Guillermo G. mol, CEO of Luminant. "They want to blend that with other set services."

Meanwhile, KPMG is planning to off its Internet consulting division, trias, later this year. One of the reasons for the spin-off is to crea currency—stock options that pro to zoom in value—with which to tract new employees, says Keyul P CEO of Metrias. With other big five counting firms sure to follow suit, young industry is about to grow real fast.

By Debra Sp in New

Remember when the year 2000 was years and years away?

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57.89%	21.06%	13.06%
one year	five year	ten year

Scudder Greater Europe Growth Fund*

34.58%	28.39%	26.01%
one year	five year	Since inception 10/10/94

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MUTUAL FUNDS

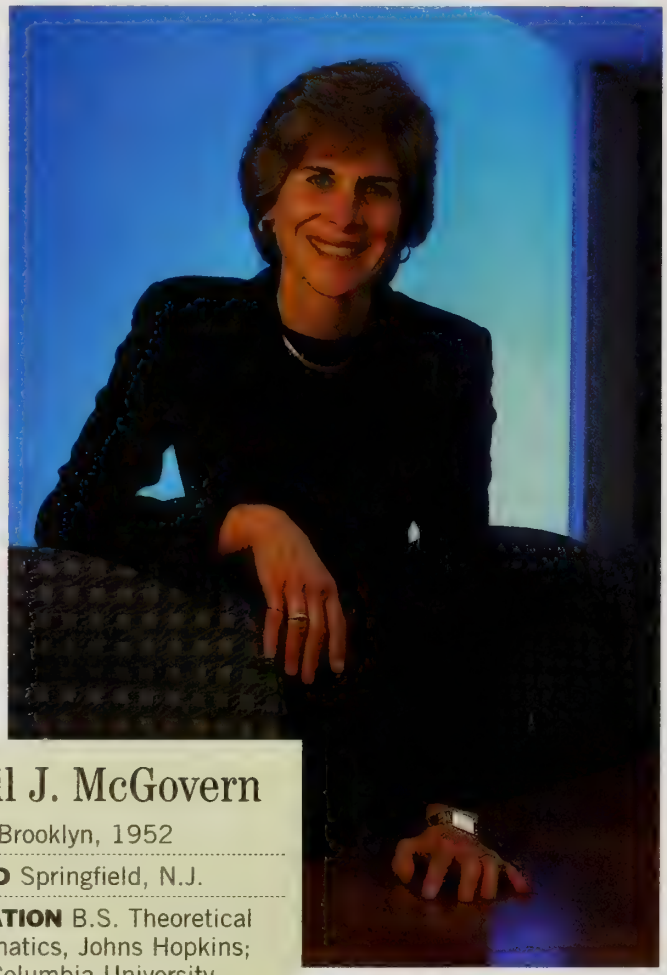
A QUICK SCRAMBLE UP FIDELITY'S LADDER

The mutual-fund giant taps a mass-marketing veteran

Gail J. McGovern got off to a controversial start at Fidelity Investments. In September, 1998, the Boston mutual-fund giant lured her away from the top consumer marketing job at AT&T. When Fidelity put her in charge of its 3,284 phone operators and 77 branch offices, her first move was to send letters to 30,000 Fidelity customers who were the most frequent callers to its service center. Her message: Quit tying up the phone lines and use automated phone and Internet services instead.

It was hardly the "Reach Out and Touch Someone" approach made famous by AT&T. Even so, most customers switched to automated services, and none pulled their account, McGovern claims. "It was an obvious solution to a business problem."

Whatever bad taste it left with Fidelity customers, it put a shine on McGovern's star inside Fidelity. On Jan. 25, McGovern, 47, was named president of personal investments, the company's top consumer marketing post. She now oversees Fidelity's online brokerage business and advertising, a job that lands her on Fidelity's powerful 15-person operating committee, headed by Chairman Edward C. "Ned" Johnson III. The two executives who outrank her—Johnson, 70, and President James C. Curvey, 64—are nearing retirement age, though they've not signaled when they plan to do so. Johnson's daughter Abigail, age 38, who owns 25% of Fidelity, stands to replace her father. She is now second-in-command in Fidelity's fund unit. If McGovern succeeds, she and Abigail could eventually hold the two top jobs.



Gail J. McGovern

BORN Brooklyn, 1952

RAISED Springfield, N.J.

EDUCATION B.S. Theoretical Mathematics, Johns Hopkins; MBA, Columbia University

FAVORITE PASTIMES Spending time with her 10-year-old daughter. Reading books on history of math. Vacationing on Jersey shore.

FAMILY Married. Husband is a programmer at Hewlett-Packard.

McGovern's first order of action in her new post, she says, is "to make Fidelity No. 1 in brokerage and continue our leadership in mutual funds." Her longer-term goal is to offer every financial service Fidelity customers want.

It won't be easy. Sure, Fidelity, with 6.5 million customers and $955 billion in managed assets, has no competitor threatening its dominance in funds. But it was an online brokerage latecom 1997, and has been playing catch "Millions of our customers own Fid funds but don't even know we're a broker," she says.

Fidelity's market share in online t ing volume moved up from fifth at the end of 1998, to fourth at the of 1999, according to U. S. Bancorp P Jaffray Inc. And last year, Fidelity passed Charles Schwab & Co. in o accounts, 3.5 million to Schwab's 3.3 lion. But Schwab is outpa Fidelity in terms of assets ended the year with online kerage assets of $349 bil vs. Fidelity's $269 billion.

MIXED SIGNALS. Some say Govern's marketing experi is something Fidelity so needs. "Fidelity has b plagued by a lack of a cohe strategy," says James Puni a senior online finance ana at Forrester Research who consults for Fidelity. An ex ple: Fidelity sent mixed sig last year when it simultane ly ran two ad campaigns seemingly contradictory lines, "Invest for the L Run" and "Every Sec Counts."

McGovern isn't likely make such mistakes, say mer AT&T colleagues. McGo has a genial personality and litical skills that helped her through AT&T's ranks. He forts to bundle long-dista with other products, such wireless and Internet serv helped slow the company's market-share slide, says Mandl, a former AT&T presi who now runs Teligent Inc

Still, the former comp programmer's lack of broke experience could be a stumbling bl "You also need operations expertise an understanding of what inves need," says Gregory Smith, an analys Chase Hambrecht & Quist.

McGovern says she won't ma Schwab's recent moves to go after ac traders because most of Fidelity's tomers don't want the service, and t who do already pay commissions lo than Schwab's. Instead, McGovern w to "serve up what customers need be they realize they need it." With c petitors aiming to do the same, s need a strong strategy in order succeed.

By Geoffrey Smith in Boston
Steve Rosenbush in New Y

IBM
Customer Advocate
Name:
Graham Knight
Job Description:
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closer to their
Experience:
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its claims handling system, giving
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COMMENTARY

By Jeffrey M. Laderman

MUTUAL FUNDS SHOULD UNLOAD THEIR LOADS

For decades, Founders Funds sold its mutual funds directly to the public without a "load," or sales charge. But recently, with good but not outstanding performance, the company had a hard time attracting investors. So on Dec. 31, Founders slapped loads as high as 5.75% on their funds and started marketing them through brokers and financial planners. Now, these "advisers" who get their clients to buy the funds will collect the fat sales charge.

In an era of cheap point-and-click investing, at a time when Wall Street giants are slashing commissions, the mutual-fund industry can't shake its addiction to loads. It doesn't seem to matter that the assets of no-load funds surpassed load funds four years ago (chart) or that over 70% of net cash flow last year went to no-load firms. If performance doesn't sell a fund, maybe a commission will.

The industry's take on loads: They go to the broker or financial planner to pay for his service. Good financial advice is valuable and the provider needs to be paid.

CHOICES? That's certainly true. But lumping the cost of advice into the purchase of an investment is not the way to go. If buyers need guidance, they should pay separately for an adviser's time or services. With fee-based counsel, the only incentive an adviser has to recommend one fund vs. another is that it best suits the investor. Advisers who work this way are pretty much restricted to no-load funds or to those load funds that waive loads for investors who work with advisers.

With loads, the adviser might favor the fund with the 5.75% charge over one with, say, a 4% load. And the adviser will never choose a no-load fund no matter how well it performs and fits an investor's needs. The solution: Dump the loads altogether and let investors pay for advice à la carte.

Indeed, if load-fund companies did so, they might just find themselves with lots of new customers: do-it-yourselfers who shun load funds because they don't want to pay for advice they don't need. Anyone can go to Charles Schwab & Co.'s Web site and buy Franklin California Growth or the Templeton World funds or scores of other load funds without even talking to a live person, let alone an adviser. But Schwab still charges the 5.75% load. Does this make any sense?

The fund industry defends loads, saying they offer investors more choices of how to pay for advice. "Many people don't want to pay fees, and loads are better for them," says Lee E. Rosenberg, a certified financial planner at ARS Financial Services Inc. in Valley Stream, N. Y., who works on load and fee-only bases.

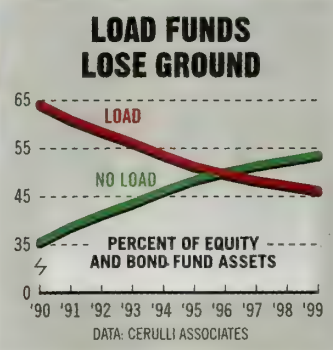
Today, fund firms offer so many versions of loads that you need help to sort them out. Some don't charge at the time of investment. They instead levy higher annual fees, and they may also hit investors with steep redemption charges if they sell before five or six years. Dreyfus Founders, the new name of the Founders unit, has four share classes for individuals, each with a different pricing plan. (Pre-Dec. 31 shareholders got "F" shares, a fifth class, which give them the right to continue investing without loads.)

NO DISCOUNTS. All of these may be choices, but they're not good ones.

Suppose a broker has two clients, both with $10,000 to invest in a fund with a 5.75% load. But one is knowledgeable about investments and needs little ongoing attention while the other is a nervous neophyte who demands more time. They'll both pay $575, even though if they could be billed for the broker's time they would be paying different sums.

Can't the broker discount the load to reflect this? No. It's illegal. The Investment Company Act of 1940—the law that governs mutual funds—requires companies to "fix" the loads at which funds will be sold and forces dealers to adhere to them. This practice is similar to "retail price maintenance," which the courts have pretty much outlawed over the years with respect to most consumer goods. But in mutual funds, this anticompetitive mechanism survives. In 1992, regulators at the Securities & Exchange Commission proposed the repeal of this section of the act. Opposed by the fund industry, the matter died.

Many in the fund business believe that eventually all funds will be no-load, with investors paying for advice separately. Fund companies and investors would both benefit if that happened sooner rather than later.



Senior Writer Laderman covers mutual funds.

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MOVIES

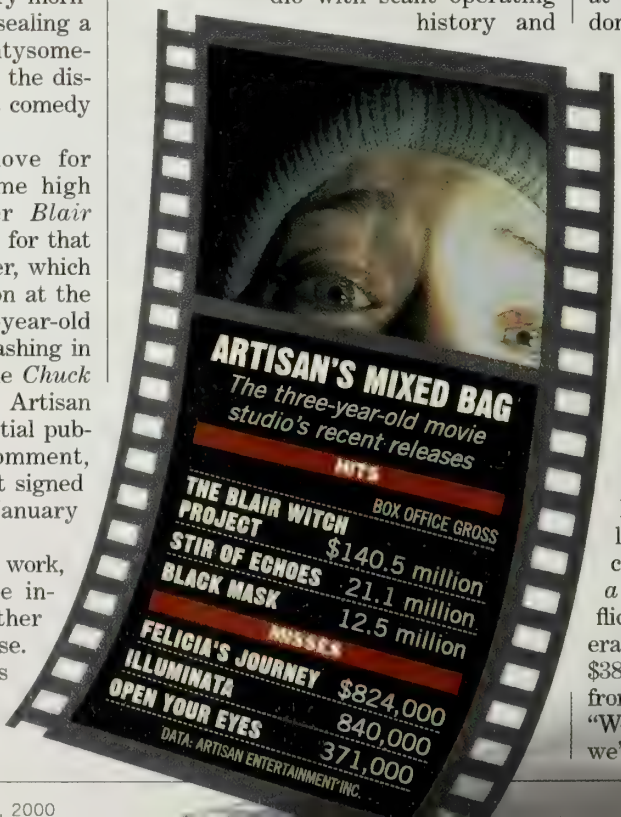
WILL THE *BLAIR WITCH* SEQUEL BE AN IPO?

Artisan Entertainment wants to turn buzz into cash

After snagging *The Blair Witch Project* at last year's Sundance Film Festival, there's pressure on Artisan Entertainment Inc. to keep up its reputation for spotting indie blockbusters. So it wasn't at all surprising that Artisan President Amir Malin was up till 2 a.m. one January morning during this year's festival, sealing a deal to pay a couple of twentysomething filmmakers $1 million for the distribution rights to their offbeat comedy *Chuck & Buck*.

Of course, Malin would love for *Chuck & Buck*, about onetime high school chums, to be another *Blair Witch*. Artisan paid $1.1 million for that low-budget supernatural thriller, which went on to bring in $140 million at the box office. And nearly three-year-old Artisan is wasting little time cashing in on its current buzz. By the time *Chuck & Buck* hits theaters this July, Artisan is likely to have filed for an initial public offering. Artisan won't comment, but industry sources say that it signed up Merrill Lynch & Co. in January as lead underwriter.

UP-AND-COMER. To make the IPO work, Artisan will have to persuade investors that it's not just another one-hit-wonder production house. Rather, it wants to be known as an up-and-coming content provider tapped into the cultural zeitgeist and the Web-savvy ways of its youthful target audience. It already owns the video rights to some 6,600 titles, including *Terminator 2: Judgment Day* and *Dirty Dancing*. And with much of Hollywood enthralled with anything that passes for "content" to fill all the new digital pipelines, even a studio with scant operating history and only a few hits may be able to tap the public markets. "It's called striking while the iron is hot," says Marcus Hu, co-president of independent film company Strand Releasing Co. "And no one blames them."



Otherwise, an Artisan offering m stir up unhappy memories of other among independent studios. In the 19 houses such as DeLaurentiis Enter ment Group, Carolco Pictures, and non Group all raised prodigious on Wall Street—only to fail amid blo budgets, soaring overhead, and box-o flops. Oddly enough, Artisan itself i amalgam of several failed independe Based in Santa Monica, Calif., the pany was created in 1997 when inve at Bain Capital Inc. and Richland don & Co. paid $125 million for mo losing Live Entertainment, w owned the video rights to ne 2,000 titles from many of the dies. To run the company for t the investors hired onetime en tainment consultant Mark A. Cu as Artisan's chief executive, a with former talent agent Bill B as co-president with Malin, a mer president of independent company October Films (now Films).

The trio quickly scooped up video and digital video disk (rights to a further 4,600 titles cluding TV movies from Hallm Hall of Fame, nature titles from Discovery Channel, and vintage leases from Republic Pictures, cluding the Jimmy Stewart classic *a Wonderful Life* and the John Wa flick *Highlander*. In 1999, Artisan erated cash flow of about $40 millio $380 million in revenue, says Curcio from $22 million on $180 million in 1 "We've managed to double every we've been in business, and we m

NEW RELEA *Artisan's f is position mainly to cater to yo ful, Web-sa audiences*

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just do that again this year," he says.

Much of that gain will come as films from its library come out on the DVD format and the company collects video and TV revenues from *The Blair Witch Project*. In the short term, unfortunately, the rights to nearly half the company's titles—the Republic library—expire in 2003. The tough question is: Then what? Artisan has a *Blair Witch* sequel and "prequel" in the works. But those are also a bit of a question mark: The film's two directors, Eduardo Sanchez and Daniel Myrick, took a pass on the first sequel and decided instead to direct a comedy for the studio.

GHOULISH. The Artisan strategy calls for releasing as many as 12 new films a year, up from seven in 1998. The majority will be cheaper movies, such as last year's *Buena Vista Social Club*, that others make and Artisan releases in the U.S. But the company also intends to ramp up its own slate of in-house productions, typically spending between $15 million and $25 million on its own films and sharing the costs with foreign distributors. Last year it had a small hit with *Stir of Echoes*, a movie about ghouls starring Kevin Bacon, which cost about $11 million and grossed a respectable $21 million. And this year, it is rolling the dice with its largest production to date, the $35 million Roman Polanski-directed supernatural mystery *The Ninth Gate*, starring Johnny Depp, to be released Mar. 17.

To differentiate its films from the pack, Malin says Artisan's new releases cater to the "15-to-25-year-old audience that is a little bit hip, left of center," and likely knows its way around the Internet. The studio initially screened portions of its 1998 film, *Pi*, a black-and-white mystery about a tormented mathematical genius on Wall Street, through Internet site sightsound.com. Artisan also broke new ground by launching marketing for *The Blair Witch Project* on the Web—complete with fabricated police reports that helped create an urban mythology that the "witch" existed 200 years ago.

Like Artisan, other independent film studios have moved into the big time on the backs of cult hits. New Line Cinema, now a unit of Time Warner Inc., went from the *Nightmare on Elm Street* series with Freddy Krueger to make such mainstream hits as *The Wedding Singer* and *Austin Powers: International Man of Mystery*. Artisan hopes its macabre tale of a witch in the hills of Maryland, secured at a film fest in Park City, Utah, may turn out to be a secret portal leading to a vault of riches on Wall Street.

By Ronald Grover in Santa Monica, Calif.

Government

CAMPAIGNS

BUSH'S AVENGING ANGEL

Can Ralph Reed rally the Religious Right—and stop McCain in South Carolina?

Reeling from his drubbing in the New Hampshire primary, George W. Bush is calling out the shock troops to fend off the populist charge of Senator John McCain. For Bush, it could come down to a make-or-break stand in South Carolina's primary on Feb. 19. And no one will be more vital to his Southern survival strategy than Ralph Reed, the political consultant and former executive director of the Christian Coalition.

ELECTION 2000 THE REPUBLICANS

Reed isn't shy about praising the Lord—or passing the ammunition. Despite his choirboy looks and unfailing politeness, the 38-year-old Reed is a canny political operative with a zest for partisan combat. His mission is clear: To help save Bush's hide, he must convince religious conservatives that George W.'s "compassionate conservatism" is preferable to McCain's Reaganesque appeal. Reed, who two weeks ago predicted victory in South Carolina, is more cautious now. "We're in a very competitive race. If Governor Bush was considered the front-runner before, that doesn't apply to us anymore," he sa

For Reed, first drawn to politi Georgia as a volunteer for a Senate didate swept to victory in the Re landslide of 1980, the showdown in S Carolina is a coming-out of sorts. In 30 months since he left his Chris Coalition job, he has toiled in relative scurity in an Atlanta suburb, compili mixed record as a GOP campaign co tant. Now, says one longtime ally, is Ralph's chance to prove that he's guy who can deliver."

Using his impressive Rolodex a massive mailing list of relig conservatives that he ass bled as Pat Robertson's ri hand man, Reed is buil bridges to Christian gro rounding up endorsem from prominent ministers, designing direct-mail and marketing peals. His firm, Century Strategies, received $186,109 from the Bush c paign thus far, according to Fed Election Commission reports.

TRICKY PROBLEM. South Carolina's servative Christians accounted for of the primary vote in 1996, and H needs to attract born-again voter offset McCain's strength among i pendents, moderates, and the sta 400,000 veterans. But how can Bush

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BusinessWeek

ferentiate himself from a rival who has a similar position on abortion? Both Bush and McCain oppose the U.S. Supreme Court's 1973 landmark *Roe v. Wade* decision, but they favor legal abortions in the cases of rape and incest, and they oppose anti-abortion litmus tests for federal judges and Vice-Presidential nominees. In addition, both men would ban late-term abortions.

Bush's camp thinks it can stake out the right flank on issues including fetal-tissue research and the GOP's platform plank on abortion. Reed believes McCain committed a major blunder when he pledged to water down the party's 1992 pledge to ban all abortions—with no exceptions—and require judicial picks to back this absolutist stance.

McCain's attempt to broaden his appeal by pledging to change the platform "will cause him big trouble," Reed predicts. What's more, former South Carolina Governor David M. Beasley, a Bush backer, asserts that McCain will be hurt by past congressional votes for bills that would allow fetal-tissue medical research. "Social conservatives are fired up against him," says Beasley.

McCain could be helped most by campaign overkill from the breathless Bushies. A relentlessly negative assault on McCain could backfire among independents and Democrats—who are allowed to cast GOP ballots in the state's wide-open primary. "They've got a very tricky problem," says Rice University political scientist Earl Black. "Clearly, Bush is going to rely on the Religious Right, but he needs a lot more than that to win in South Carolina. They run a risk of overdoing the ideology."

LA VIDA LOCA. Some independent GOP analysts wonder whether Reed can successfully mount a strategy that runs to the right and center simultaneously—a trick maverick McCain pulled off in New Hampshire. Skeptics point to Reed's work in the unsuccessful 1998 South Carolina congressional race of State Senator Michael L. Fair, a hard-line co vative who lost the GOP prima now-Representative Jim DeMi Greenville. "I've never been terribl pressed with Reed's micromanagen says Furman University political tist James L. Guth, an expert o Religious Right. "In my estimatio misjudged a number of things. H lot better at grand strategy."

Another challenge for Reed w revving up a Christian Right tha steadily lost momentum since it p with the 1994 congressional elec

ON BUSH

> "If [he] was the front-runner before, that label doesn't apply to us anymore."
>
> — RALPH REED

Among the movement's wo rift between activists wh mand ideological purity pragmatists, such as Reed, are willing to compromis gain victory at the polls. R old Christian Coalition is vi by many as too accommod to the party Establishment. former House Speaker Newt Ging extramarital affair has soured some servatives on pols who preach "fa values" but live *la vida loca.*

Still, Reed seems to have done a id job thus far of marketing Bus the Religious Right. His aggressive reach to Christian leaders helped freeze out social conservative rivals as Dan Quayle and Gary Bauer. Th maining social conservatives, S Forbes and Alan Keyes, barely reg on the radar screen in South Caro

If Reed succeeds in his current sion, he won't be able to relax for After South Carolina, the camp heads South for other contests w religious conservatives will have t rallied. If Reed rises to the challe the cherubic-looking pol with a flai hardball won't just be winning pr sional vindication. He just migh heading for a bigger strategic role a Bush team that needs all the st fighters it can get.

By Richard S. Dunham, with Walczak, in Washington

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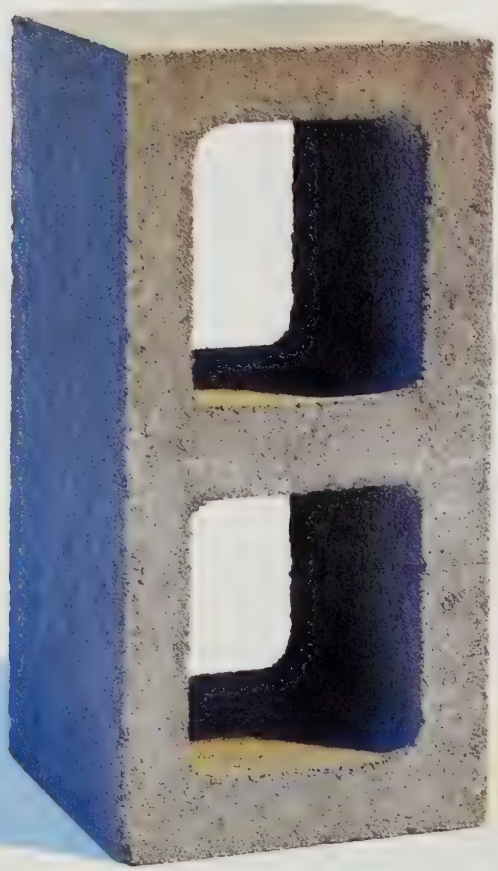

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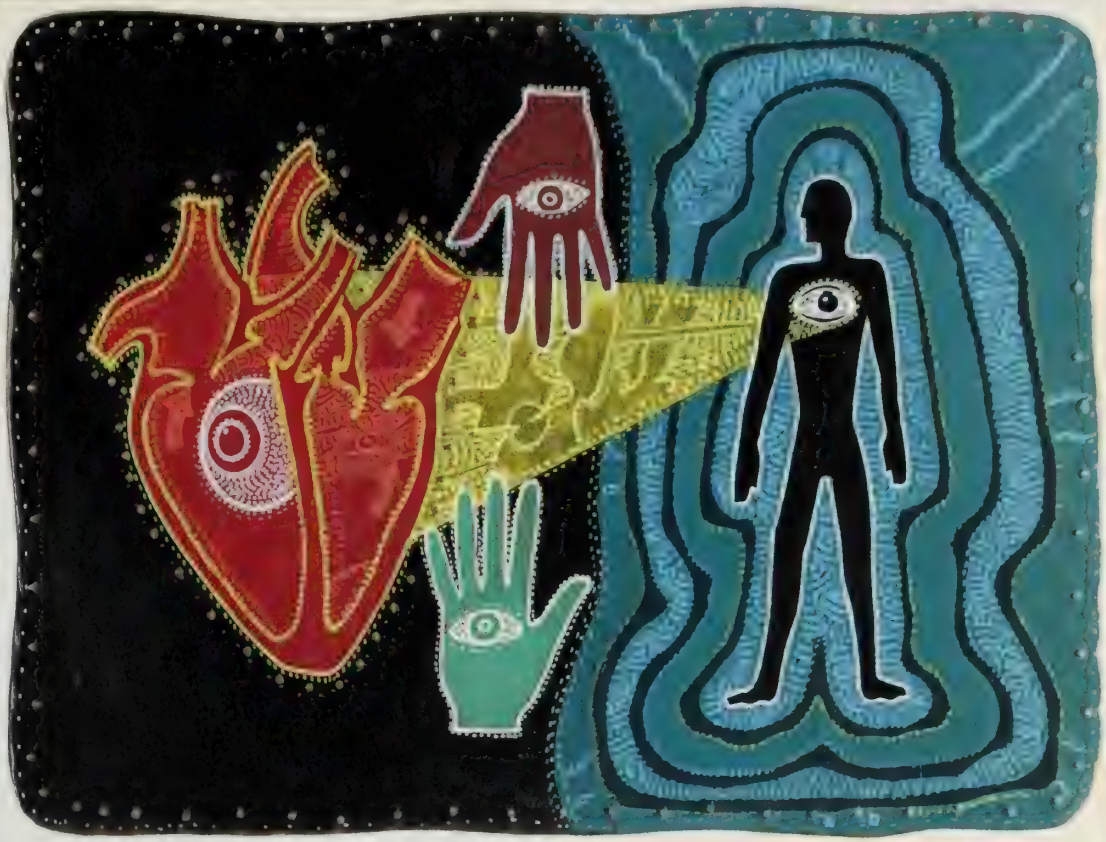

Live and in 3-D, Your Body at Work

Imaging advances allow detailed diagnoses without scalpels

BY KATE MURPHY

Cliff Burks, 74, has mild coronary-artery disease but didn't want to have another angiogram. Twenty years ago, the retired construction-company owner from Galveston, Tex., had undergone the procedure, in which dye is injected into an artery to provide a clearer X-ray image of the heart's blood vessels. "It was uncomfortable, to say the least," says Burks of having a catheter threaded through an artery in his groin and then up to his heart. No wonder he jumped at the chance to try a noninvasive imaging technique that didn't even exist three years ago. Using a $250,000 ultrasound device, physicians were able to get a three-dimensional view of his beating heart. "It was amazing," he says. "There was my heart pumping on a screen in 3-D." Doctors could tell right away everything was fine, compared with the three hours or so it would have taken to reach a diagnosis with an angiogram. As a result, Burks was on his way home in a heartbeat.

Health

The marriage of better imaging devices with computers in the past five years has allowed "views inside the body never before seen," says Masood Ahmad, Burks's doctor and director of echocardiography at the University of Texas Medical Branch in Galveston. Moreover, these images are obtained with little or no discomfort to patients. Physicians—using the latest developments in sound waves, radio waves, X-rays, and magnetic fields—not only can cost-effectively examine the body's organs and other structures in exquisite detail, they can watch them at work, whether they're beating hearts or bending knees.

Doctors, primarily at major research institutions and teaching hospitals that can afford the equipment, are still sorting out how best to use the technologies. However they are utilized, these imaging procedures may eventually cost

less than traditional or invasive types of examinations, because none requires sedation or hospitalization. The scans are likely to run from $500 to $5,000, depending on the part of the body to be studied and the degree of detail needed. Magnetic resonance imaging (MRI) generally costs the most, ultrasound the least.

Medicare and private insurers have yet to provide coverage for these tests, since many of the technologies' applications are still considered experimental. But that may change in a year or two, says David J. Vining, associate professor for diagnostic radiology at Wake Forest University School of Medicine in Winston-Salem, N.C. "The science is there, so the funding will follow."

One new device is called a multidetector computed tomography (CT) scan. The scanner has multiple rings of X-ray detectors that circle around the patient, picking up more details in a quarter of the time it takes older models, which have only one ring. "It takes you longer to drop your drawers and get on the table than it takes to complete the scan," says Vining, whose hospital has one of the $1 million machines. Made by General Electric, Siemens, and Marconi, the devices came on the market less than two years ago. Doctors and technicians take the scanner's finely rendered images and feed them into the same types of computers used to create virtual-reality video games. "The perspective we gain is incredible," says Geoffrey Rubin, co-director of Stanford University Medical School's 3D Imaging Laboratory, which uses a multidetector CT scan. "We have taken recent gains in imaging and leveraged them with technology developed for the entertainment industry."

Three-dimensional views of tumors can be rotated for a better vantage point and finer analysis. Aortic aneurysms can be measured to determine precisely the size of the stents and grafts to be surgically implanted. Doctors have also used these technologies to perform so-called virtual colonoscopies, with an accuracy of up to 90%, in a mere 20 seconds.

SNAPSHOT: *A 24-second CT scan reveals an aneurysm (bulge) and plaque (spots)*

MRI has taken a leap forward, too, a not only of subtle improvements in equi design but of "a better understanding of pulse sequences" of radio waves through a in a magnetic field "will yield the best pict says Philip Alderson, chairm the department of radiology lumbia University Medical in New York. The images ha come so refined that for the two years, doctors, aided by puters, have been able to pe what is known as functional M which they track the moveme oxygen to monitor blood flo phosphorus to assess met activity.

This is ideal for discovering cular problems and diagnosing cerous growths—and it can help in the exploration of ho mind works. By watching the of oxygen and consumptio phosphorus, "we can act watch how the brain respon different stimuli and discove cognitive pathways," Alderson says. Alread searchers at the University of Pennsyl School of Medicine in Philadelphia and the versity of Alabama School of Medicine in ingham are using functional MRI to learn about such brain disorders as Alzheimer's di and schizophrenia. The technology also great promise for testing the efficacy of regimens, such as chemotherapies aimed at ing the formation of the blood vessels that tumors.

A newfangled version of the oldest ima technology, ultrasound, also has made it to ket. Until three years ago, it was impossib use ultrasound to examine a three-dimens image of the heart in real time—as Dr. Al did—because the organ's movement dist the picture. But Volumetrics in Durham, developed tiny transducers that, when p between the patient's ribs, rapidly fire s waves in a pyramidal fashion. The techno can therefore capture the entire heart in shot—rather than the several shots neede older models that emit only a two-dimens beam.

Ultrasound has become sensitive enoug show blood flow, an improvement that m make some biopsies unneces Researchers at Thomas Jeffe University Medical Colleg Philadelphia are using u sound devices made by panies such as Medison Siemens to determin growths in the uterus breast are cancerous si by looking at their vascula tivity—without lifting a sca Thanks to these advances kindest cut is no cut at a

Online Info

DIAGNOSTIC IMAGING ONLINE
dimag.com
Webzine focusing on new developments in the field

RADIOLOGICAL SOCIETY OF NORTH AMERICA
radiologyresource.org
Good descriptions of various imaging procedures

Image Makers

COMPUTED TOMOGRAPHY (CT) SCAN X-rays of the body from thousands of different angles are processed by computer to create a visual cross-section of tissues and organs.

MAGNETIC RESONANCE IMAGING (MRI) The body is put into a magnetic field and then bombarded by radio waves. Images are created because magnetized material excited by radio waves returns to normal in a distinct, visually decipherable way.

ULTRASOUND The variations in how sound waves bounce off different tissues create images.

figure 1. straw

figure 2. sticks

figure 3. brick

(The third little pig was onto something.)

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ADOPTING? YOU DESERVE BENEFITS, TOO

BY AMY DUNKIN

More companies should get the message: Fairness and worker loyalty are good reasons to offer paid leave and some reimbursement of adoption costs

Just before I adopted my newborn son, Eli, in December, 1996, I called the human-resources department at The McGraw-Hill Companies, which owns BUSINESS WEEK, to ask about maternity leave. The woman I spoke to congratulated me on my impending adoption and said I was entitled to take off 12 weeks under the 1993 federal Family & Medical Leave Act. "How much of that is paid time?" I asked. "None," she said. "We don't give paid leave for adoptions."

The words stung. Had I been pregnant, I would have been eligible for up to 10 weeks of leave at full pay—four weeks prior to my child's birth and six weeks after. But women starting a family through adoption got zip. What's more, McGraw-Hill hadn't joined the ranks of other corporations offering lump-sum payments to help defray adoption costs. (It has since changed its policy.) These can easily run from $10,000 to $30,000 per child.

At least 150,000 children were adopted in the U. S. in 1998 from foster care, private domestic sources, and other countries—about a 20% increase over 1992, according to the Health & Human Services Dept. As more single and married people take the adoption route, assistance should be a standard part of corporate benefit menus. This would promote loyalty and goodwill among workers and bring together children and families. It costs little: Less than 0.5% of a typical company's work will tap adoption benefits in a given year, sa the National Adoption Center in Philadelph

Fast-food giant Wendy's International, w senior chairman, Dave Thomas, has long ch oned adoption causes, has a model program other employers should follow. Wendy's offe to six weeks of paid leave for adoptive pare of either sex—the same as for a woman wh gives birth—plus $4,000 or $6,000 for expen depending on whether a child has special ne In the 1990s, only 36 of Wendy's 6,000 full-t employees used the adoption benefit. The p gram cost the company $146,000, compared $14 million paid out in maternity claims.

SPREAD THE WORD. Some 30% of major U companies have gotten the message and n provide adoption benefits. That's up from 1 in 1990, according to benefits consultant H Associates. Most of them choose to stick w expense-reimbursement eraging $3,000 to $5,00 But last summer, McG Hill agreed to pay $5,0 plus one week of paid leave, for adoptions co pleted as of Aug. 1. I l to think some colleagu and I had a hand in ge ting our employer to s the light. In March, 19 I sent a letter with a f mer Washington corres dent who had just adop a girl from Russia to tw execs—Barbara Maddoc senior vice-president for man resources, and CEO Harold McGraw III. We spelled out reasons the co pany should institute adopt benefits. Maddock replied th McGraw-Hill was considering s form of adoption help and invited us to par pate in the discussions. Several adoptive pa ents at BUSINESS WEEK joined in, but the ef took more than two years to bear fruit.

After the initiative passed, McGraw sent his thanks—and a $3,000 bonus. I also will become a beneficiary of the new adoption p age. On Jan. 13, my husband, Larry, a brought home our second son, Jonah, f Florida at eight days old. Knowing that have some financial support during my se maternity leave makes me feel a lot be about where I work.

Associate Editor Dunkin edits the Busin Week Investor and Lifestyle sections. For a Q&A with Dave Thomas of Wendy's, see the Feb. 21 issue online at www.businessweek.c

Help with Adoption Issues

SITE	COMMENTS
ADOPTION.COM www.adoption.com	Educational resource with adoption-site links, message boards, and chat rooms
DAVE THOMAS FOUNDATION FOR ADOPTION 614 764-3009, www.wendys.com	Organization that offers, free, *The Beginner's Guide to Adoption* and *The Employer's Guide to Adoption Benefits*
NATIONAL ADOPTION CENTER 800 TO ADOPT www.adopt.org	Advocacy group that supports employee adoption benefits, promotes special-needs adoptions, and provides general information
NATIONAL ADOPTION INFORMATION CLEARINGHOUSE 703 352-3488 www.calib.com/naic/	Comprehensive resource for all aspects of adoption, featuring an adoption-literature database along with agency and support-group listings

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Internet auctions are cheap, convenient–and reach millions

BY TODDI GUTNER

Robbin Sinclair used to sell collectibles at flea markets to help pay her college tuition. But she no longer wastes weekends sitting at a booth while she waits for browsers to plunk down their money. Sinclair, a 43-year-old student from Casper, Wyo., has set up shop on eBay, the largest online auction site. Recently, she pocketed $175 for a pair of 1950s vintage curtains with fluttering pink leaves that she bought for $3 last July, and says she couldn't give away at a flea market. "People were fighting for them," she says.

Sinclair now pulls in $1,300 a month on eBay, triple what she made before, and more t enough to pay her tuition. She is one of lions who have recently hammered down a on the Web auction block. As 24-hour-a-day e tronic garage sales have mushroomed, on auction sales soared to $1.4 billion in 1998 are expected to grow to $19 billion by 2003, cording to Forrester Research. People are us Web auctions to sell everything from jade tri boxes to classic cars.

Web Auctions

The lure of selling item an online auction is unc standable. Internet auctions ten cost less than classified ads. You don't h to schlep goods to a flea market, use up a eted weekend day, or worry about weather.

ILLUSTRATIONS BY TIM BLAKER

s also reach millions of people worldwide, 're likely to get a better price than you if you set a fixed price in a physical sale. · eBay seller says: "People will buy any- n an auction because they think they're ; a bargain."

AUR BONES. To get in on the act, you need w the value of the item you're selling and price it. Then you must decide which of usands of auction Web sites to use and nd when to sell. In online auctions, you register on a Web site, and post descrip- of each item in a specific category. You ovide photos and set a minimum bidding Bids from interested buyers appear in- and are continuously updated. Once the n closes, the highest bidder is obligated . You can't legally hold someone to the owever. If you get a bad bid, you're only se is to relist your item. You contact your g bidder via e-mail or phone, confirm the ost, and have the payment sent. When the meets your terms, you send the item.

ther you're auctioning off used cowboy or a Norman Rockwell print, neither will nless you get the pricing right. You can reserve price, which is the amount a bid each before you're required to sell. If the e isn't met, the sale doesn't take place. you want to be assured of a certain price, n set a minimum opening bid that is an ac- le final sale price.

re are a number of ways to determine the of your item. You can check price guides and or magazines, or call a dealer or collector to the current market for items you want to ou can also compare the price that similar have already sold for on the Net. Some such as eBay, list completed auctions for st 30 days, showing the number of bids, er the item sold, and at what price.

en you set your price, remember to factor s. They vary, but the structure is often me. eBay's listing fee, for example, starts for cheaper items and goes up to $2. sites, such as Yahoo!, allow you to list for You must also pay the auction site a small ntage of the selling price. It could be a scale from 5% of the final sale amount to for higher-priced items. Or you might en- er a flat fee of 2% to 3%. Also, determine nuch it will cost to pack and ship the item, pecify those charges in your description.

searching comparable auctions will help you which Web site to use. Because you can list your item on one site at a time, you the one that will generate the most bids serious buyers. eBay is the Goliath of auc- ites, with $8 million in sales daily and 2,978 ories. eBay's huge selection brings in so buyers that most sellers choose it. That's for sellers, because the large number of rs drives up prices. But eBay may not al- be the right place. Alan Detrich, a paleon- st, originally listed a 25-foot-tall, 40-foot-long *nosaurus rex* skeleton for $5.8 million on But "people bid on it who didn't have the s to pay for it," says Detrich. So he put it r sale on www.millionaire.com, a Web site linked to Lycos because it prequalifies bidders before they bid.

To find obscure, yet potentially more appropriate, places to list your items, go to resource sites like AuctionRover, which reports nearly every available site. Or do an auction on the Fairmarket network. To compete with eBay, Fairmarket links 100 Web sites such as Excite and Lycos that cross-list items. Any item you put for bid on one site will appear on all of them.

Selling on the Web Block

GENERAL SITES	
SITE (WWW.)	DESCRIPTION
auctions.amazon.com	Link to Sotheby's for qualified sellers of high-end items
ebay.com	Most popular site, with $8 million in sales daily
fairmarket.com	Network of 100 sites that share listings
auctions.yahoo.com	Free listings and numerous selling categories

AUCTION RESOURCE SITES*	
SITE (WWW.)	DESCRIPTION
auctionrover.com	Offers comprehensive how-to-sell online section
auctionwatch.com	News, site reviews, message boards, appraisal center

* HELP SELLERS FIND THE BEST SITE ON WHICH TO PLACE ITEMS

Next, it's time to market your item. Take care to choose the category that best fits your item. Write a clear and eye-catching title to attract attention, and mention the item's condition, age, and special qualities. You'll need to write a complete description. Don't forget to mention flaws to help build your credibility. Photos are an important sales tool, since many buyers won't bid without seeing what an item looks like. You must also state the payment methods you'll accept. Money orders or cashier's checks are the safest. Wait until personal checks have cleared before you send your item. You might want to consider an online escrow service, such as i-escrow (www.iescrow.com), for an expensive sale. It and other middlemen hold the money until the item is delivered and both parties are satisfied. They usually charge a fee of about 5% of the purchase price.

PROMPT REPLIES. Finally, you must decide when to hold the auction—and this is critical. It's best to begin in the evening after most people leave work, say, between 5 and 9. But be aware of the time zone the auction site operates in. Then consider how long you'll run your auction and the day of the week it will start and end. A three-day auction is good for a hot item like a Pokémon trading card, while a seven-day auction works well for an item you don't think will go as quickly. After 10 days, most items look stale and bidders lose interest. Don't start or end on a weekend, when potential buyers are out. Most of the action tends to take place in the last few hours of an auction.

Once bidding begins, keep track of your auction and respond promptly

Auction prices are usually higher. "People will buy anything . . . they think they're getting a bargain," says one eBay seller

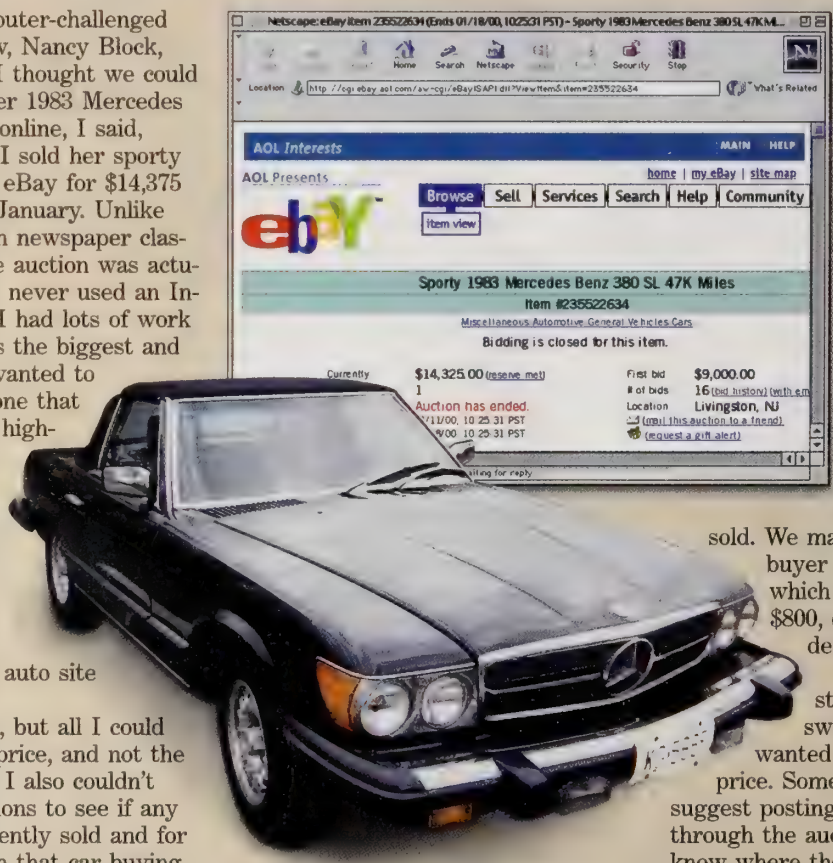
and politely to e-mails. If your item sells, pack it carefully and ship it as soon as you receive payment. And don't forget to keep tax records. You won't have to pay income tax on money you earn if you sell your items for less than their original cost. But the tax laws get sticky if you're selling a collectible that has appreciated in value. In this case, check with your accountant.

A word of caution: Selling online can become habit-forming. That's what Edward Ci found. "I am up all hours of the night ch on my auctions," says Ciliberti, who is a r tate agent in Pacific Grove, Calif. In one on eBay, he earned $34,638 selling collect

If you've got bags full of baby clothes babies to give them to or other items tha been taking up space in your closet, don't them out. Try auctioning them online. Yo be surprised to see how much they're wor

VROOM! HOW TO SELL A MERCEDES FAST

When my computer-challenged mother-in-law, Nancy Block, asked me if I thought we could auction off her 1983 Mercedes Benz 380 SL online, I said, "let's give it a try." I sold her sporty little convertible on eBay for $14,375 over seven days in January. Unlike selling a car through newspaper classified ads, the online auction was actually fun. But having never used an Internet auction site, I had lots of work to do. While eBay is the biggest and best-known site, I wanted to make sure I chose one that would generate the highest number of bids. I found several other sites that had a section for cars, but either they had few Mercedes or too few bids.



I could have gone to a dedicated auto site such as CarScene (www.carscene.com), but all I could see was the listing price, and not the auction in progress. I also couldn't find completed auctions to see if any similar cars had recently sold and for how much. So, given that car buying and selling on the Net is still in its infancy, I figured I would use the site that has the most traffic—eBay. The site also makes it incredibly easy for an online-auction neophyte. To find out how many similar Mercedes had sold in the last 30 days, I searched under completed sales. I found 100 Mercedes were listed between Dec. 24 and Jan. 1. More than a third of them sold, with an average selling price of $17,000. Those that received bids had about 20 each.

To set a price, Nancy and I mulled over eBay's comparable sales data, and the listing prices on other sites. Another source of information is Kelley Blue Book (www.kbb.com), which can tell you a car's trade-in value. I was shocked to find that Kelley valued the Mercedes at only $6,050. That sold us on the auction process—and Nancy decided she wouldn't accept less than $14,375. We set that as her reserve price. If the bidding didn't reach that number, the auction would close without a buyer. We set an opening bid of $9,000 to initiate interest.

Then there were the technical details. While eBay has a wonderful tutorial, putting phot online was labor-intensive. We wrote title and descriptio "Sporty 1983 Mercedes Benz 380 SL, 47K Miles"—and d cided on a few listi options such as a bold-faced title for and showing a phot of the car in a spec automotive section $19.95. The total co was $46.95—$25 to list and $21.95 in e tras. That didn't include the $25 eBay collected once the sold. We made it clear that the buyer would pay shipping, which would run $500 to $800, depending on destination.

Once the auction started, I promptly an swered e-mails. Many wanted to know the reserve price. Some online auction expe suggest posting the reserve halfway through the auction so buyers woul know where they stood. Nancy, an artist and antiques dealer who ofte buys and sells at Sotheby's, was against that idea initially. But when our bidding stalled at $14,000 with a few hours to go, I talked her into d vulging her price. Shortly after, a b der hit the number. eBay lets you look up a profile of interested buye and suggests calling the high bidde to chat before the auction closes to make sure the person is serious. I didn't know that detail, so I waited until the auction closed to e-mail ou winner. Turns out he was as happy get our car as we were to sell.

Toddi Gut

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SHOULD YOU BE SCARED OF DECIMAL STOCK PRICING?

BY MIKE McNAMEE

For more than two centuries, Wall Street has counted money in the same units that 17th century pirates used—pieces of eight. This summer, fractional pricing—pricing stocks in eighths, sixteenths, and the occasional thirty-second of a dollar—will finally go the way of Spanish doubloons, as stock and options markets switch to decimal pricing. The move will come as a relief to anyone who's ever struggled to translate 17 7/16 in dollars and cents. But investors will still need to watch for dark sails on the horizon.

Fans of decimals trumpet the savings that individual investors will reap. The first step—pricing stocks in 5¢ increments, instead of the standard sixteenths, or 6.25¢—will indeed yield savings. The smaller "tick" should shrink dealers' spreads—the gap between what market-makers will pay for a share and the price at which they'll sell—by 20%, helping investors at the expense of dealers.

HOST OF RISKS. But shrinking the tick will also alter the dynamics of trading—especially if, as proposed, markets next switch to trading in penny increments. Research shows that the smaller the tick, the more likely prices are to "flicker," or change rapidly, as active traders try to outmaneuver each other. Even the Securities & Exchange Commission admits that its short-sale rule, aimed at slowing bear raids by barring short sales of a stock when its price is falling, probably couldn't be enforced.

Penny trading also undercuts other rules designed to protect investors. Say you place a lim-

it order to buy 1,000 shares at $20. Your br might want to buy the same stock for its o account. Under today's rules, the brokerage can't "step in front" of your order—which m keep you from getting the shares you want less the firm is willing to pay a sixteenth m or $20.0625, and put $62.50 at risk. With pe trading, the brokerage might be allowed to bid its customer at just $20.01. The firm's r ing only $10, because it knows it has a reac buyer—you—if the price falls. If the price r you miss out on the profit; if the price falls, you're stuck with a stock in decline.

Shrinking the tick also will make marke quotes less accurate. Rather than offer to 1,000 shares at $20, a dealer might try to a bit more by offering 200 shares at $20, 2 $20.01, and so forth. Individual investors n be frustrated to learn that even small orde can't be filled at the quoted price. "You mi end up with four different prices on a 2,00 share purchase," says Richard Ketchum, p dent of the National Association of Securit Dealers, which owns the Nasdaq market.

The SEC knows the switch to smaller tic raises a host of risks. It's ordered Nasdaq the stock exchanges to phase in decimal tr ing. On July 3, stocks and options of 30 as unnamed companies will start trading in 5 crements. A month or so later, nickel tradi will be extended to all stocks and options, the initial 30 issues will be used to test th change—penny trading. Based on that exp ment, the markets and the SEC will decide whether to trade in pennies, nickels, or bo

By moving cautiously, the SEC hopes it c uncover pitfalls and fine-tune its rules. Dec pricing is long overdue, and its clarity and smaller spreads will probably reward smal vestors over time. But pennies from heave Not right away.

McNamee covers investing from Washin

Decimal Pricing Pros and Cons

PROS

NARROWER SPREADS Trading costs will fall as the gap between dealers' bid and ask prices for most stocks falls from 6.25¢ to 5¢ or even a penny.

MORE QUOTES Active traders will change buy and sell prices more frequently as the cost of outbidding other traders shrinks.

CONS

CONFUSING REPORTS Because dealers will spread the shares they have to sell across more prices in hopes of reaping extra pennies, even 1,000- or 2,000-share orders may be filled at three or four different prices.

FEWER LIMIT ORDERS Individual investors who specify a fixed price to buy or sell will be less likely to get orders filled.

LESS PAYMENT FOR ORDER FLOW With smaller spreads, dealers will have less money to pay brokers to route orders to them. Dealers will compete instead on execution speed and price improvement.

DATA: *TRADING IN PENNIES* BY LAWRENCE HARRIS

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(PC Sold Separately)

METLIFE: I WOULDN'T TAKE THIS PUPPY HOME

BY ROBERT BARKER

Why is it going public when investors are cool to insurers —and it has work to do first?

Coming from a company with the simple genius to adopt Snoopy as its mascot, MetLife's plan to go public looks like something that might befall Charlie Brown. Companies should sell stock when investors are itchy to get in on their action, right? But the market lately has treated most insurance stocks like so many stray dogs. In January, when John Hancock Financial Services went public in a deal a lot like MetLife's, investors said: "So?" Issued at 17, the stock hasn't closed above 18.

So I couldn't help wondering: Does MetLife's lousy timing spell opportunity? The nation's largest life insurer soon hopes to win the blessing of regulators and policyholders for its plan to sell up to $6.5 billion in stock. Coming as soon as March, the deal would take Metropolitan Life Insurance from its 132 years as a mutual organization owned by its customers to a stock company, with shares traded publicly. Policyholders would wind up with about 70% of the stock and then be free to cash out, hold on, or buy more.

As he prepares the deal, MetLife CEO Robert Benmosche is keeping quiet. But the prospectus makes clear his aim. He wants to have stock available as payment in mergers, which are bound to pick up since Washington last year razed regulatory walls between insurers, b and brokers. Whether MetLife will wind u ing or getting bought is an open questio what's plain from its financials is that, des flair for friendly marketing, MetLife is a l the blimps that keep its name—and Sno aloft: all puffed up and pretty slow.

With customers in 1 of every 11 U.S. h holds, plus 10 countries abroad, MetLife long reach. Besides life insurance, which i directly to individuals as well as through plans, MetLife underwrites disability, long care, dental, auto, home, and personal-pro policies. It offers retirement plans, mutual and annuities, and it invests for pension Add it up, and MetLife revenues totaled billion in the year ended Sept. 30.

Because MetLife hasn't yet posted fo quarter results, and because mutuals figure income differently from stock companies, comparisons with other insurers are haza But if you do some math, you come upo quieting signs about MetLife. First, despit ting its nonsales ranks by 11% in 1998, it re inefficient, employing 19 people for every $ lion in pretax income (table). John Ha though a much smaller operation, gets by fewer than half that many employees. A can International Group, the insurance w profit machine and one of the few insurers by investors, needs still fewer. Second, Me growth record is weak. Strip out inves gains and income, and revenue hasn't ris much as 5% in any year since 1995.

MetLife knows it needs to cut pa further. Optimists migh that prospect as earnings power. also might e revenues to more swift the comp prospectus sugge an outline of its str This includes such stuff as ing agents better, trying harder to g assets via mutual funds and annuities, and ing abroad. The trouble is, other than furth ploiting its familiar brand, there's noth MetLife's plan that scads of rivals, from Hancock to General Electric, aren't pursu

So what's MetLife worth? To date, it ha only that it may price shares as low as $14 high as $24. At the midpoint, $19, you'd pa more than book value, equivalent to what profitable John Hancock gets. At $14, M would go for 0.8 times book—about where vestor keen on insurers might get interes

But not me. I keep asking: If MetLife is to sell out its policyholders when the m for insurance stocks is rotten, why expec serve future stockholders any better?

For barker.online, go to www.busines com/investor/ or AOL keyword: BW Daily

A Bit Bloated

	AIG	JOHN HANCOCK	METLIFE
REVENUE (MILLIONS)*	$36,898	$7,634	$25,620
PRETAX INCOME**	$6,492	$1,207	$2,224
EMPLOYEES	48,000	9,700	42,300
EMPLOYEES PER $1 MILLION IN PRETAX INCOME	7.4	8.0	19.0
PRICE-TO-BOOK RATIO***	4.9	1.1	1.1

*12 months ended Sept. 30 **Before dividends to John Hancock Financial Services Inc. and MetLife policyholders ***Assumes that Metropolitan Life Insurance Co. goes public at $19 a share; book value for it and John Hancock are pro forma as if they had gone public on Sept. 30

DATA: BUSINESS WEEK

QUESTIONS? COMMENTS? E-mail barkerportfolio@businessweek.com or fax (321) 728-1711

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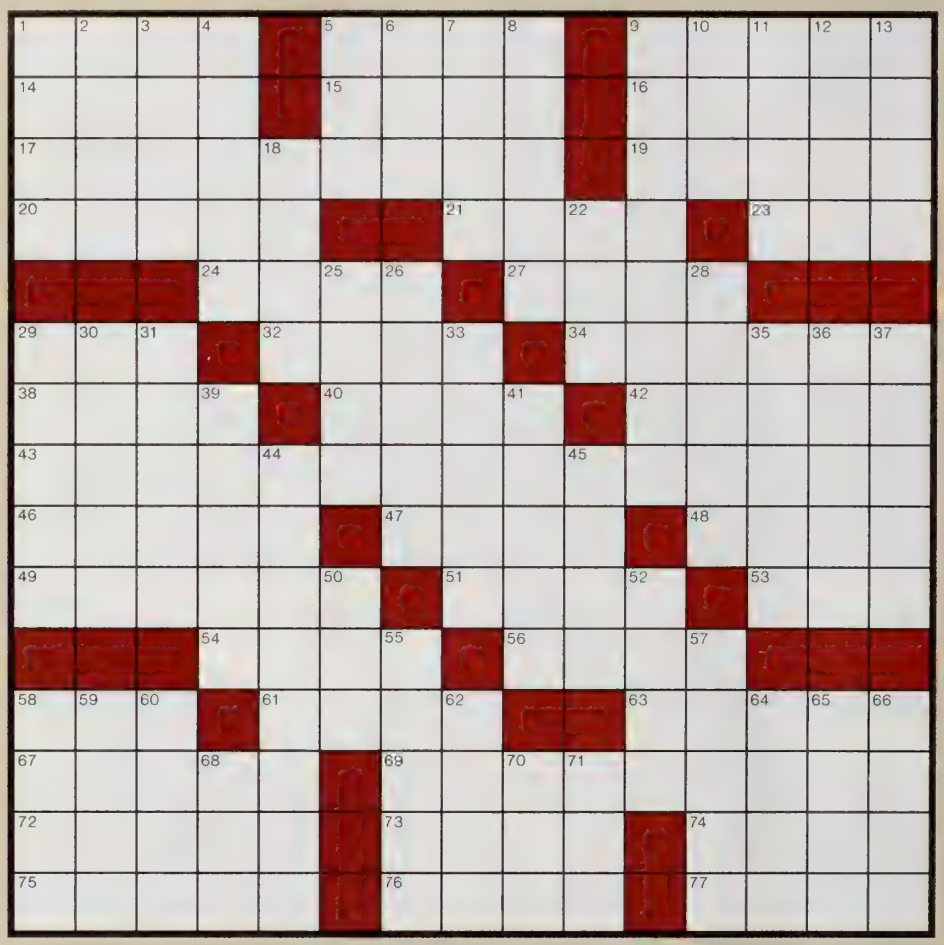
Puzzle #25



ACROSS

1. Real-estate rentals: Abbr.
5. Air France destination
9. Dutch supermarket giant
14. Land map
15. Liver, on French menus
16. Former governor Cuomo
17. Portrait on the new $1 coin
19. One way to communicate
20. Additional expense
21. CompUSA customer
23. First U.N. secretary-general
24. Microscopic
27. Auto's ornamentation
29. Hershey's follow-up to the Kiss
32. Orderly
34. Squirrel hoard
38. Designer Cassini
40. Genetics and geology: Abbr.
42. Annoyed
43. Steve Case and Bob Pittman
46. Sign up
47. Breakfast-in-bed need
48. First-year law student
49. Child's-play item
51. Key prop in "Citizen Kane"
53. Suffix for bureaucrat
54. Airport-screen postings: Abbr.
56. Equity-building perk: Abbr.
58. Day, to José
61. Shah's homeland
63. Semiconductor slice
67. Either of two Bronfmans
69. Amazon.com concern, in two ways
72. Hertz rival
73. Expense account
74. Out-of-town excursion
75. Broadcast again
76. "King of the road"
77. Collector's quests

DOWN

1. Church section
2. Pfizer dental rinse
3. Mediator's asset
4. Open for business
5. Ghost __ chance
6. Word on a theater ticket
7. Stead
8. Brewmaster's buy
9. "__ Luxury" (see page at r
10. Sandwich filler
11. Type of exam
12. 53, to 62 Down
13. Former American Red Cross head
18. Word on line 13 of Form
22. Epoch
25. __ egg
26. Onassis' "Christina" was
28. IBM's "Think," for exam
29. MLS offerings
30. TV medical advisor Dr. A
31. Artistic category
33. Management levels
35. What alumni may do
36. Nostrils
37. Couturier's concern
39. Spruce __ (Howard Hughes plane)
41. Actors' minimum wage
44. __ Building (Silicon Alley landmark)
45. __ ONLY (top secret)
50. Price __
52. Pillow filling
55. Onetime big name in green stamps
57. Labor agreements
58. Expensive
59. Not in operation
60. Ice-cream ingredient
62. Memorable emperor
64. It may precede casting
65. Give off
66. Sales staff
68. Doctors' trade group: A
70. Diet Pepsi alternative
71. __Jima

For answers to this puzzle:
Turn to page 175 in this week's issue of Business Week or visit Mixing Business with Pleasure by Lincoln on www.businessweek.com (URL: www.businessweek.com/adsection/puzzlesbylincoln/index.htm)

Puzzle created by: Stanley Newman.

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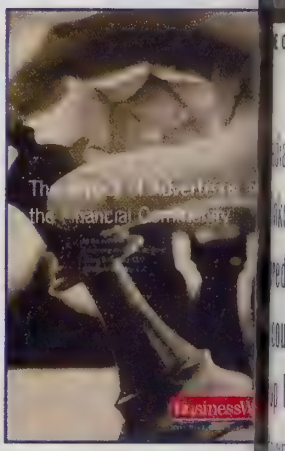
How does consistency build and maintain momentum?

How much money does my company need to spend on advertising?



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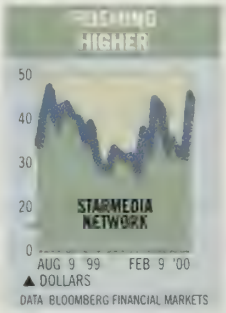
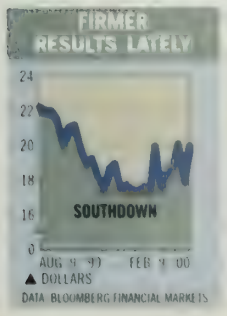
StarMedia Network (STRM), the leading online network in Latin America, has regained star billing on Wall Street after reporting fourth-quarter results that beat analysts' expectations. The company posted a loss smaller than consensus estimates, as revenues jumped 60% from their third-quarter level. Also, customers' page views during the latest quarter leaped 45%, while the number of advertisers increased 85%. StarMedia stock, which had tumbled to 27 in late November, down from 52 in August, has rebounded to 45. With analysts raising revenue estimates for the next two years, the stock could well continue its upward momentum. The solid fourth-quarter results "confirm our view that StarMedia is well positioned to benefit from the explosion in Internet use in Latin America," says analyst Michael Morin of Merrill Lynch. Latin America is the world's fastest-growing Internet market.



One other factor that could add sizzle to the stock: Some big investors believe competitors America Online, Yahoo!, and Microsoft are separately interested in buying StarMedia. A senior managing director at a global investment firm that has acquired a sizable stake in StarMedia says the company is destined to be acquired by one of the three, mainly because it was the first to establish a widely recognized Web brand in Latin America. There is a huge demand for a full-service Latin American network in Spanish and Portuguese, says this pro, who figures StarMedia is worth 75 a share in a buyout.

A Silicon Valley hedge-fund manager who has been buying shares also thinks StarMedia is a logical target for the same three. "They need to establish a dominant presence in Latin America fast," he argues.

Michael Graham of Robertson Stephens raised his revenue estimates for 2000, from his previous $37.5 million to $43.3 million, and for 2001, from $81 million to $90 million. He expects StarMedia to make money in 2002: 20¢ a share on revenues of $180 million.



CEMENTING A RELATIONSHIP?

It's a rare sight to see a cement maker mixing it up with the high-flying New Economy Internet stocks. But Southdown (SDW), the nation's second-largest cement producer, has been pushing up since early December, from 46 to 57½ a share. One reason: A number of investors believe Southdown is in play.

Rumors have swirled in Europe that Southdown rejected a buyout bid in December from Britain's Blue Circle Industries, the world's No. 5 cement maker. On Jan. 31 something happened that may push Blue Circle to sweeten its offer for Southdown: France's Lafarge, the world's No. 2 producer, announced an unsolicited offer to buy Blue Circle.

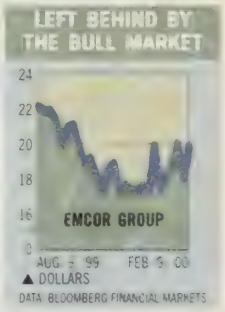
Nick Pantazis of New York investment firm Moness Crespi & Hardt thinks that Blue Circle had suspected all along that Lafarge would go after it, hence its attempt to woo Southdown—as a defensive move. He suspects that talks bogged down because Blue Circle didn't offer a high enough price.

Pantazis says that, based on valuations in the buyouts of Lone Star Industries and Giant Cement, Southdown is worth 80 a share. He thinks Southdown may give in if Blue Circle ups the price to 85. Another possible buyer, says Pantazis, is Cemex, a major Mexican producer.

"Southdown," says Pantazis, "is a very attractive property," with plants in big markets, including California and Florida. The kicker to the takeover play, he says, is the favorable outlook for cement. "Demand is on the rise against a backdrop of limited local supply," says Pantazis. He expects Southdown will earn $6.25 a share in 2000 and $6.75 in 2001, up from $5.50 in 1999.

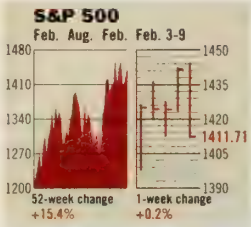
EMCOR: WHERE LIGHTS SHOULD BE FLASHING

One example of a non-Internet company making money—but being ignored by the bull market—is EMCOR Group (EMCG). The largest mechanical and electrical construction service company in North America, EMCOR operates almost everywhere: In New York, it installs and services the traffic lights. In London, it manages the entire electrical and mechanical system at Heathrow Airport. And in Las Vegas, it is in charge of all the bright lights and electrical systems in many casinos such as Caesars Palace. But EMCOR's stock has gone nowhere. In the past seven months, it has been stuck in the low 20s. Yet EMCOR's business is humming. The Street will be in for a shock when EMCOR reports fourth-quarter earnings: Consensus estimate is for the company to earn 71¢ a share. But some investors think EMCOR will pull a surprise and post about 85¢ instead. For all of 1999, it will post around $2.15 on revenues of nearly $2.9 billion. A big investor says EMCOR is one of the biggest bargains around. "When the market wakes up to these kinds of profitable companies, EMCOR should hit 35," he says. EMCOR declined comment.



BusinessWeek Investor *Figures of the Week*

STOCKS



COMMENTARY

Despite excellent news showing record-high productivity and well-contained labor costs, the Dow Jones industrials lost over 300 points, or 2.8%, for the week. Technology stocks bucked that trend, however, and the Nasdaq Composite gained 7.1%. Overseas markets delivered strong returns for the week as well, with Mexico producing double-digit gains.

Data: Bloomberg Financial Markets

U.S. MARKETS	Feb. 9	Week % change	Year-to date % change	Last 12 months % change
Dow Jones Industrials	10,699.2	–2.8	–6.9	17.1
Nasdaq Composite	4362.8	7.1	7.2	88.8
Nasdaq 100	3966.3	6.5	7.0	104.9
S&P MidCap 400	444.3	0.7	–0.1	22.8
S&P SmallCap 600	202.6	3.2	2.4	23.3
S&P SuperComposite 1500	298.2	0.3	–3.5	16.7
SECTORS				
S&P/BARRA Growth	865.9	2.5	–2.4	25.5
S&P/BARRA Value	576.2	–2.4	–5.6	5.6
S&P Basic Materials	117.8	–5.2	–14.8	5.8
S&P Capital Goods	985.5	–1.9	–11.2	15.6
S&P Energy	752.3	–8.4	–9.8	7.3
S&P Financials	122.1	–4.2	–8.2	–1.3
S&P REIT	73.8	–0.3	0.3	–10.3
S&P Transportation	534.9	–1.4	–10.4	–19.7
S&P Utilities	247.9	0.4	9.1	2.7
GSTI Internet	679.7	6.0	–4.6	91.6
Morgan Stanley Cyclical	493.7	–4.9	–15.7	4.0
PSE Technology	1062.0	7.5	9.3	127.9

GLOBAL MARKETS	Feb. 9	Week % change	Year-to date % change
S&P Euro Plus	1594.9	3.9	2.8
London (FT-SE 100)	6315.4	0.2	–8.9
Frankfurt (DAX)	7629.1	6.4	9.6
Tokyo (NIKKEI 225)	20,007.8	2.2	5.7
Hong Kong (Hang Seng)	16,819.5	8.3	–0.8
Toronto (TSE 300)	9255.2	5.5	10.0
Mexico City (IPC)	7469.2	10.3	4.8

FUNDAMENTALS	Feb. 8	Week ago
S&P 500 Dividend Yield	1.17%	1.19%
S&P 500 P/E Ratio (Trailing 12 mos.)	30.3	30.1
S&P 500 P/E Ratio (Next 12 mos.)*	24.1	23.7
First Call Earnings Surprise*	4.98%	5.05%

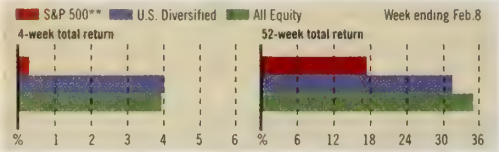
*First Call Corp.

TECHNICAL INDICATORS	Feb. 8	Week ago
S&P 500 200-day average	1360.0	1358.0
Stocks above 200-day average	27.0%	25.0%
Options: Put/call ratio	0.44	0.50
Insiders: Vickers Sell/buy ratio	0.71	0.71

BEST-PERFORMING GROUPS	Last month %		Last 12 months %
Defense Electronics	35.9	Instrumentation	219.0
Semiconductors	30.0	Communications Equip.	124.8
Instrumentation	26.9	Defense Electronics	105.4
Entertainment	22.7	Semiconductors	102.1
Natural Gas	18.5	Health–Care Services	75.6

WORST-PERFORMING GROUPS	Last month %	
Shoes	–29.4	Pollution Control
Forest Products	–25.5	Tobacco
Engineering & Constr.	–25.4	Toys
Metal & Glass Containers	–24.3	Office Equip. & Supplies
Aluminum	–23.2	Food Chains

MUTUAL FUNDS



Data: Morningstar, Inc. **Vanguard 500 Index fund

EQUITY FUND CATEGORIES

Leaders Four-week total return	%	Laggards Four-week total return	%
Technology	15.7	Natural Resources	–4.7
Health	13.8	Mid-cap Value	–2.6
Small-cap Growth	13.5	Real Estate	–2.6
Mid-cap Growth	12.4	Large-cap Value	–2.3
Communications	11.5	Precious Metals	–1.4

Leaders 52-week total return	%	Laggards 52-week total return	%
Technology	142.7	Precious Metals	–3.3
Japan	103.5	Financial	–3.2
Diversified Pacific/Asia	97.2	Real Estate	–2.2
Pacific/Asia ex-Japan	91.7	Mid-cap Value	3.1
Latin America	89.6	Large-cap Value	3.6

INTEREST RATES

KEY RATES	Feb. 9	Week ago	Year ago
MONEY MARKET FUNDS	5.37%	5.36%	4.60%
90-DAY TREASURY BILLS	5.63	5.66	4.48
1-YEAR TREASURY BILLS	6.16	6.24	4.64
10-YEAR TREASURY NOTES	6.65	6.60	4.90
30-YEAR TREASURY BONDS	6.32	6.32	5.34
30-YEAR FIXED MORTGAGE†	8.46	8.23	6.84

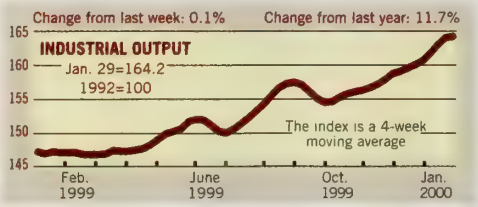
BLOOMBERG MUNI YIELD EQUIVA

Taxable equivalent yields on AAA-rated, tax-e municipal bonds, assuming a 31% federal t

	10-yr. bond	30-
GENERAL OBLIGATIONS	5.24%	
TAXABLE EQUIVALENT	7.59	
INSURED REVENUE BONDS	5.42	
TAXABLE EQUIVALENT	7.86	

†BanxQuote, Inc.

BW PRODUCTION INDEX



Information on each of the index components is at www.businessweek.com.
BW production index Copyright 2000 by The McGraw-Hill Companies

The production index was up fractio week ended Jan. 29. The unavera however, dipped a sizable 1%, fallin from 165.1 in the previous week. For of January, the index was up a whop to 164.2, from 160.6 in December. sonal adjustment, electric power, a duction increased considerably. On side, large declines were noted in th coal and rail-freight traffic, with mor declines in steel, autos, trucks, an

THE WEEK AHEAD

BUSINESS INVENTORIES *Monday, Feb. 14, 10 a.m. EST* ▶ Inventories held by manufacturers, wholesalers, and retailers likely jumped 0.6% in December, after a 0.9% gain in November, says the median forecast of economists surveyed by Standard & Poor's MMS, a unit of The McGraw-Hill Companies.

INDUSTRIAL PRODUCTION *Tuesday, Feb. 15, 9:15 a.m. EST* ▶ Output probably rose 0.5% in January, on top of a 0.4% increase in December, says the S&P MMS survey.

HOUSING STARTS *Wednesday, Feb. 16, 8:30 a.m. EST* ▶ Housing starts probably totaled up to an annual rate of 1.66 million in January. In December, starts jumped by 7.1%, to a 1.71 million pace.

PRODUCER PRICE INDEX *Thursday, Feb. 17, 8:30 a.m. EST* ▶ Producer prices of finished goods likely rose 0.2% in January, on top of a 0.3% increase in December. Excluding food and energy, core prices likely edged up 0.1% last month, the same as in December.

CONSUMER PRICE INDEX *Friday, Feb. 18, 8:30 a.m. EST* ▶ Consumer prices probably grew 0.3% in January, but only 0.2% when food and energy are excluded. In December, prices rose 0.2% for all items and were up 0.1% without food and fuel.

INTERNATIONAL TRADE *Friday, Feb. 18, a.m. EST* ▶ The S&P MMS median forec projects that the U.S. trade deficit pr added up to $26.7 billion in Decemb tle changed from November's $26.5 b

FEDERAL BUDGET *Friday, Feb. 18, 2 p.* ▶ The Treasury Dept. will likely report plus of $66.5 billion for January, dow $70.5 billion a year earlier.

BusinessWeek ONLINE

For more investment data and the components of the production inde visit www.businessweek.com.

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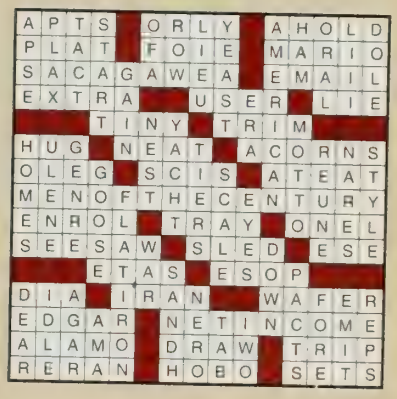

Answers from puzzle #25 in Business Week.

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E-BARBARIANS AT THE GATE

The nomenclature is right out of Philip K. Dick's science-fiction classic, *Blade Runner*: "slave" cybersites, controlled from afar; digital assault weapons by the names of Trinoo, Tribal Flood Network, and Stacheldraht ("barbed wire" in German); and the Computer Emergency Response Team (CERT). The successful attack on the biggest Web sites of the Internet by unknown persons raises the specter of e-vandals penetrating the gate to the New Economy (page 36). The in-your-face audacity of the bandits reveals the defenselessness of much of the Net—at a time when its importance to global growth increases with each passing moment. The very openness of the Internet is now shown to be, in some sense, its vulnerability. Something evil now lurks in the Internet, and the halcyon days of Net freedom may be over. Policing the Net has become a necessity. Who does it and how it is done will determine, in large measure, its continued success. With hackers plying their trade from China, Finland, Israel, Russia, and elsewhere, the policing effort will have to be global.

There were hints of bad things to come. Sophisticated new software programs that executed "denial of service" attacks began to appear on the Net late last year. These programs allow hackers to break into hundreds of powerful computers and plant long-term software time bombs that make the computers "slave" machines to the hackers. In true *Manchurian Candidate*-style, hackers wake those computers up and, on a signal, tell them all simultaneously to bombard the victim computer with data so fast that they become unresponsive, thus denying service to regular customers.

Last August, 227 computers, each furtively taken o unknown hackers, launched an attack on the Univer Minnesota, making its network unavailable to 100,000 st and faculty for three days. There were similar atta Australia, France, and Norway. Many corporations and have also been hit, but most are keeping mum.

Very troubling is the fact that half of 227 attacking co systems were part of Internet 2, a higher-speed succe the current Web. By using Internet 2, the hackers were shoot more volleys of clogging data into the Minnesota Was it a dry-run for what happened to Yahoo, eBay zon.com, CNN.com, E*Trade, and other sites? Perhap FBI issued warnings in late December and mid-January the new malicious programs first appeared. The Natio stitute of Standards & Technology and Carnegie-Mellon also issued alerts recently. But the warnings weren't save the Net from a pernicious onslaught.

What must be done? There are now more than 2,00 er Web sites, where copies of the most advanced pre ted attack tools can be downloaded by anyone. The I is too important to the New Economy to allow these weapons of destruction to be so available.

The real issue is policing. Net businesses, of cours make greater efforts to bolster their defenses. In the e thorities around the world will have to increase the lance. It may be the ultimate irony that hackers, the c of the Net, bring government law and order to this through their own irresponsible behavior.

PRODUCTIVITY: IT JUST KEEPS GOING

Is the growth in U.S. productivity, already strong by the standards of recent decades, accelerating? Recent figures suggest it might be, and the implications are vast: Living standards could rise faster, profits may increase further, economic growth might be higher, the budget surplus might grow bigger, and Federal Reserve monetary policy—over the long run—could be easier.

It's too soon to tell, but here are the facts: Productivity rose at a 5% annual rate during the last half of 1999 and 2.9% for the entire year. This compares with a 2.6% rate for 1995 through 1998, and 1.8% for 1990 through 1994. During the 1980s, annual growth averaged 1.6%, and during the 1970s, just 1%. Thirty-five quarters into this expansion, productivity as a whole is surging, with manufacturing leading the way, at 11%.

That's not all. The rise in unit labor costs is slowing. It was up just 1.1% in the fourth quarter of 1999, despite a 5.8% economic growth rate. Labor costs rose 1.8% in 1999, down from 2.4% in 1998. Perhaps most important, increases in compensation, which includes some bonus pay and stock options as well as wages, are slowing as well. This is broader measure of wage inflation, reflecting in p wealth effect of the strong stock market. It is closely by the Fed. It was up 4.4% in the fourth quarter of la compared to an increase of 5.7% in the third quarter Inflation appears to be under control.

At a recent World Economic Forum conference in Switzerland, Sun Microsystems Inc.'s President Zander suggested that the U.S. was in the third y long, 10-to-15-year high-tech cycle that is just be to have an impact on productivity. He may be r took 20 years for manufacturers to adapt to the ac electricity. It wasn't until they had completely reor the way they operated factories that productivity g peared. The same thing may be happening now. Pr ity began to pick up in the early '80s as personal co landed on business desks. It accelerated in the with the Internet. Now corporations are beginning to neer themselves to take full advantage of all info technologies. Hold on to your hat.

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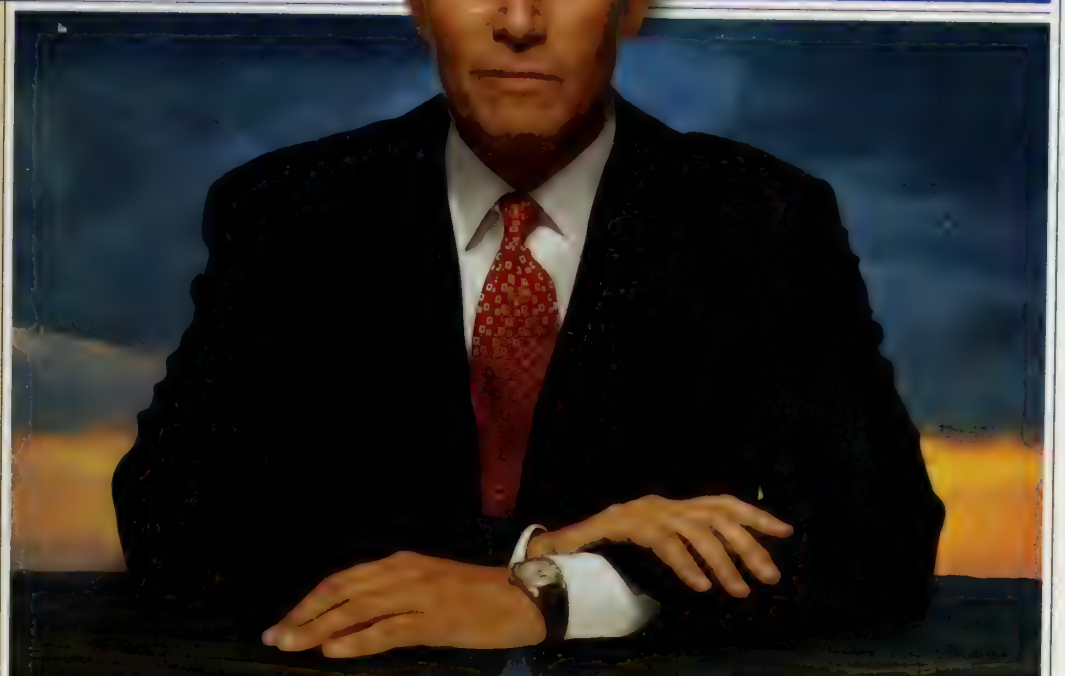

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Henry Silverman

THE LONG ROAD BACK

His fight to rebuild Cendant

BY AMY BARRETT PAGE 126

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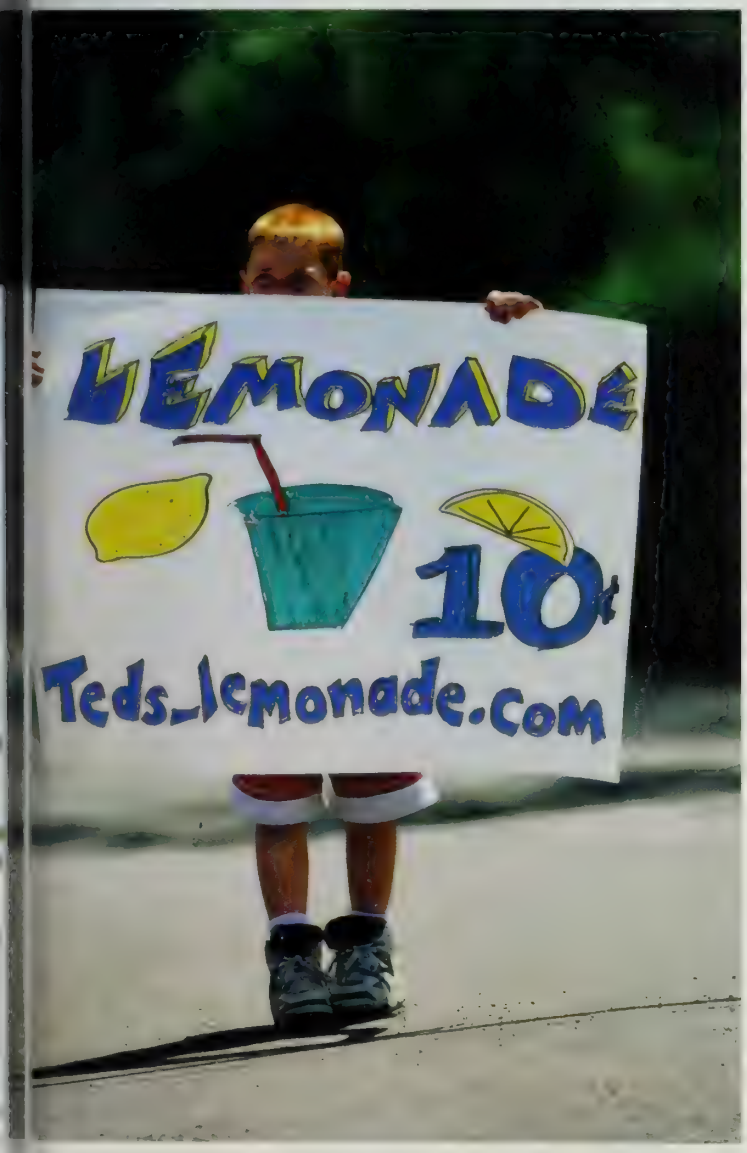

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Cover Story

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The merger of franchisor HFS and direct marketer CUC into Cendant looked like Henry Silverman's masterstroke. Instead, it led to an accounting scandal that triggered resignations, a disastrous stock plummet, and a near-total loss of investors' confidence. Now he's trying to restore their faith—and Cendant is looking more stable. But Silverman's emotional scars have yet to heal

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STRANGE BEDFELLOWS

A LEAGUE OF WOMEN NETREPRENEURS

THE VENERABLE LEAGUE OF Women Voters has jumped on the Internet IPO bandwagon. But has it sold its soul in the process? The league, which is on record as favoring campaign-finance reform, is looking to reap an undisclosed amount of fees and stock options for working on a new Web site that solicits campaign donations.

Grassroots.com has $35 million in venture capital and such backers as Mike McCurry, ex-spokesman for President Clinton, and John Sununu, former chief of staff for George Bush. Grassroots.com will provide information on candidates to voters, with an emphasis on state and local races. The site, which vows to be nonpartisan, will take a cut of online campaign contributions. But it needs help to gather info on all those statehouse candidates and would-be aldermen. Enter the league. "We had to have them," says Craig Johnson, a venture capitalist and the dot-com's interim CEO. "We couldn't think of another way to reach that deep into the political scene."

Yet the league is still uneasy over the plan. "There was a robust discussion, and it's not over yet," admits Executive Director Jane Gruenebaum. Next year's initial public offering might quiet the debate. Says Johnson: "Maybe this is the chance to build a true endowment for the league." *Lorraine Woellert*

THE LIST TOP 10 M&A LAW FIRMS

NEW FACE: *Barrister*

It was a strong market for mergers and acquisitions in 1999, with $2.7 trillion of M&A activity (based on the acquisition prices of the deal) that involved legal advisers. M&A business in Europe doubled between 1998 and 1999, propelling two London-based firms, Freshfields and Linklaters & Alliance, into the top 10.

LAW FIRM	$ VALUE BILLIONS	NO. OF DEALS
Simpson Thacher & Bartlett	893.1	173
Skadden, Arps, Slate, Meagher & Flom	848.7	212
Sullivan & Cromwell	764.2	181
Shearman & Sterling	722.3	170
Freshfields	712.6	205
Linklaters & Alliance	610.3	206
Cravath, Swaine & Moore	451.3	97
Dewey Ballantine	418.1	147
Wachtell Lipton Rosen & Katz	405.8	84
Cleary Gottlieb Steen & Hamilton	397.5	89

DATA: THOMSON FINANCIAL SECURITIES DATA

TALK SHOW "You bet I cut taxes at the top.... What Republicans should stand for is growth in the economy. ought to make the pie higher."

George W. Bush, in the South Carolina GOP primary debate

GREEN WATCH

REZONING ARIZONA

WITH AIR POLLUTION AND traffic jams marring Arizona's once quite livable cities, the state is brawling over sprawl. For better or worse, the outcome may affect how mushrooming urban areas across the nation handle growth.

The Sierra Club and other groups are pushing a ballot initiative that would require cities such as booming Phoenix to draw boundaries beyond which development would be severely limited. The initiative would also require municipalities to draft detailed growth plans subject to voter approval.

FOE: *Governor Hull is fighting an antisprawl propos*

Business groups, aided publican Governor Jar Hull, are fighting ba Feb. 14, Hull convened islative session to co putting a milder "Gr Smarter" ballot propos

The enviro's plan is opposed. "In the wors almost anything cou stopped, and no one want to relocate to P That would be horr for the state," Michael Welborn, man of Bank One in Phoenix. Co Sandy Bahr Sierra Club's Grand Chapter: "It's not go stop growth, just mak it's better planned." Opp plan legal efforts to ke greens' proposal off the in November. *John*

ELECTION 2000

VIRGOS FOR GORE

POLITICAL PROGNOSTICATORS are having a tough time picking winners in the Presidential sweepstakes. So for kicks, independent pollster John Zogby looked to the zodiac for some answers. Do voters born under a given sign favor particular candidates or is voting astrologically neutral?

In a hypothetical match-up between Vice-President Al Gore and Republican front-runner George W. Bush, the Democrat took the Virgo vote 58% to 34% for Bush. Despite Gore's thinning hair, he's also the clear choice of Aquarians, 48% to 37%. Other pr birth signs: Pisces, Leo, and Scorpio.

Bush does best those born under the Taurus, leading Gore 42%. Quips Zogby: " is a bull. You can dra own conclusions." Also Bush alignment: Canc bra, Sagittarius, and corn. Those born und sign of the twins surprise— evenly d Capricorn are the undecide 20%.

As fo upstarts, Bill Bradley everywhere in the but does best among ians, while John McC he faced Gore, is pre by Scorpios by 68 25%. *Richard S. D*

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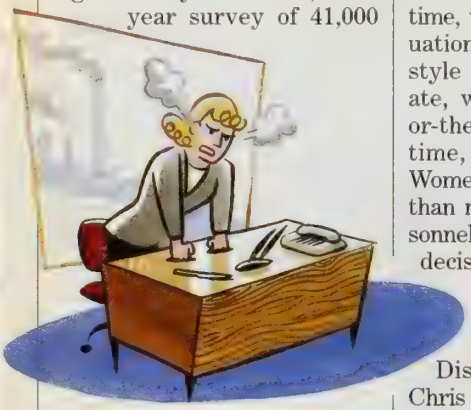
Up Front

EXECUTIVE SUITE

DON'T MESS WITH THESE LADIES

MEN ARE FROM MARS, WOMEN are from Venus, right? Well, not if you're comparing management styles. In fact, a 15-year survey of 41,000 executives—25% of them female—at 5,000 companies shows that women are slightly more high-handed than the guys are when making decisions.



So says Discovery Learning, a leadership-training company in Greensboro, N. C. It came to that conclusion by investigating whether managers solve business problems autocratically—preferring to make unilateral decisions—or "inclusively," using the input of others. Overall, men went the inclusive route 29% of the time, women only 24%. In situations where an autocratic style was deemed appropriate, women chose "my-way-or-the-highway" 35% of the time, guys only 31.5%. Women were also more likely than men to exclude key personnel needed to implement a decision by 37% to 32%.

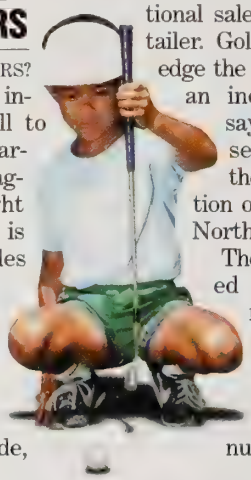
That raises an interesting question about women managers, says Discovery Learning CEO Chris Musselwhite: "Did they make it to these levels because they operate more like men, or is there basically no difference?" Musselwhite can't answer that. But if your boss is a Ms., don't automatically expect her decision-making to be warm and fuzzy. □

SPORTS BIZ

TARGETING THE TINIEST DUFFERS

SELL TO BABY BOOMERS? Forget it. The golf industry wants to sell to babies. With the market for golf gear stagnant for two straight years, the industry is looking to boost sales by targeting kids.

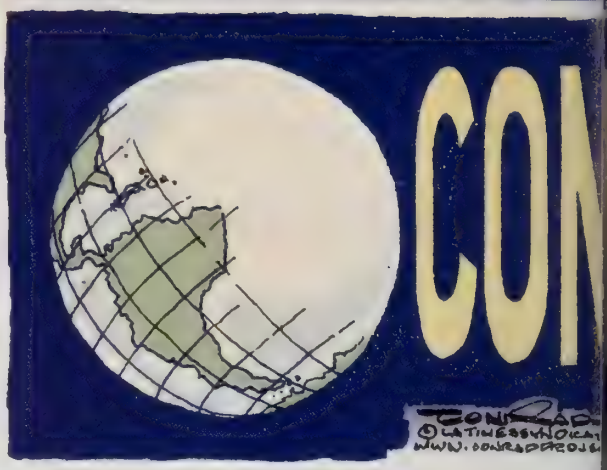
Three-year-olds have become a prized market. "Our company has grown 68% in the past year," said Steve Cade, CEO of privately held La Jolla Club Golf Co. in Vista, Calif. Kids were central to that growth. In 1999, La Jolla sold 30,000 $69 "Snoopy" junior golf bags, with three clubs each, for kids from 3 to 6. Another manufacturer, U. S. Kids Golf in Duluth, Ga., says its clubs, hats, shirts, and accessories for the junior set can mean $11,000 a year in additional sales for a typical retailer. Golf groups acknowledge the boom. "It has been an incredible growth," says Tim Geddis, research director for the National Association of Junior Golfers in North Palm Beach, Fla.



SIX-YEAR-OLD TIGER: *Woods started early*

There are an estimated 3 million golfers from ages 5 to 17 alone. They—or their parents—spend $80 million on equipment annually. Major manufacturers, such as Callaway and Taylor Made, want to increase that amount and are already adding lines of kids' golf clubs and irons. Of course, their big hope is that the youngsters keep playing—and buying—when they grow up. *Dennis Blank*

DRAWN & QUARTERED



OVER THERE

A FRENCH COVERUP IN BRUSSELS

WHAT A FASHION STATEMENT: Water company Suez Lyonnaise des Eaux will pay $2.5 million to run Brussels' city museum. Among the museum's prized possessions: some 520 costumes for one of Brussels' most beloved outdoor monuments, a bronze statue of a naked boy peeing, dubbed *Mannequin Pis*. Legend has it that during the Crusades, a little boy put out a threatening fire in Brussels this way.

MANNEQUIN PIS: *Beloved*

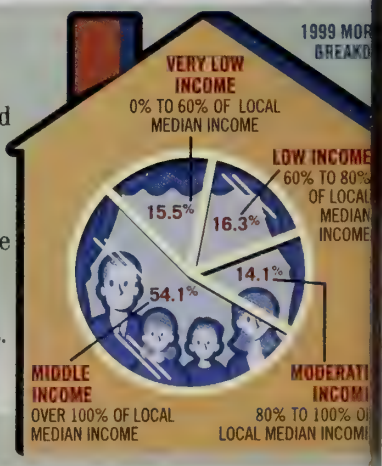
It's a sign of how far privatization has gone in Europe that Suez—which runs utilities in Europe and the U. S.—will pay to oversee the garb of the cherubic ur The statue is reg clothed in military, Chri or other outfits.

Agreeing to run th seum is part public rel part hard-nosed busine Suez. "We want to sho we can provi service for the says spokesw Catherine The company to recoup its i ment through attendance spruced-up mu But some Be are unhappy Suez' ubiquity year, it boug country's electr ity. Now that it's in of outfitting Mannequi they're grumbling th move is just another design that doesn't sui well. *William Ec*

THE BIG PICTURE

FANNIE MAE'S FULL HOUSE

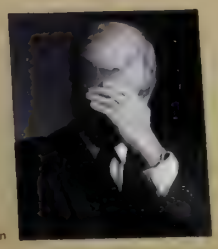
Fannie Mae funded 2.9 million mortgages worth $306 billion in 1999. About 46% of those units went to low- and moderate-income borrowers. Fannie Mae will soon aim for 50%.



DATA: FANNIE MAE, PRELIMINARY FIGURES

FOOTNOTES Voters who support the tax platform of Al Gore: 39%; George W. Bush: 24%; Bill Bradley: 18%; don't know

DATA



Joseph K. Stuart III, Chairman

To Our Shareholders

This year, I'm pleased to report...OK...so the merger didn't go as well as it should have. It took too long to get our companies working together, and the delayed integration sent our share price right down the tubes. But hey, why dwell on the past. You guys are still with me, right? Hello? Guys?

J. Stuart

Joseph K. Stuart III, Chairman
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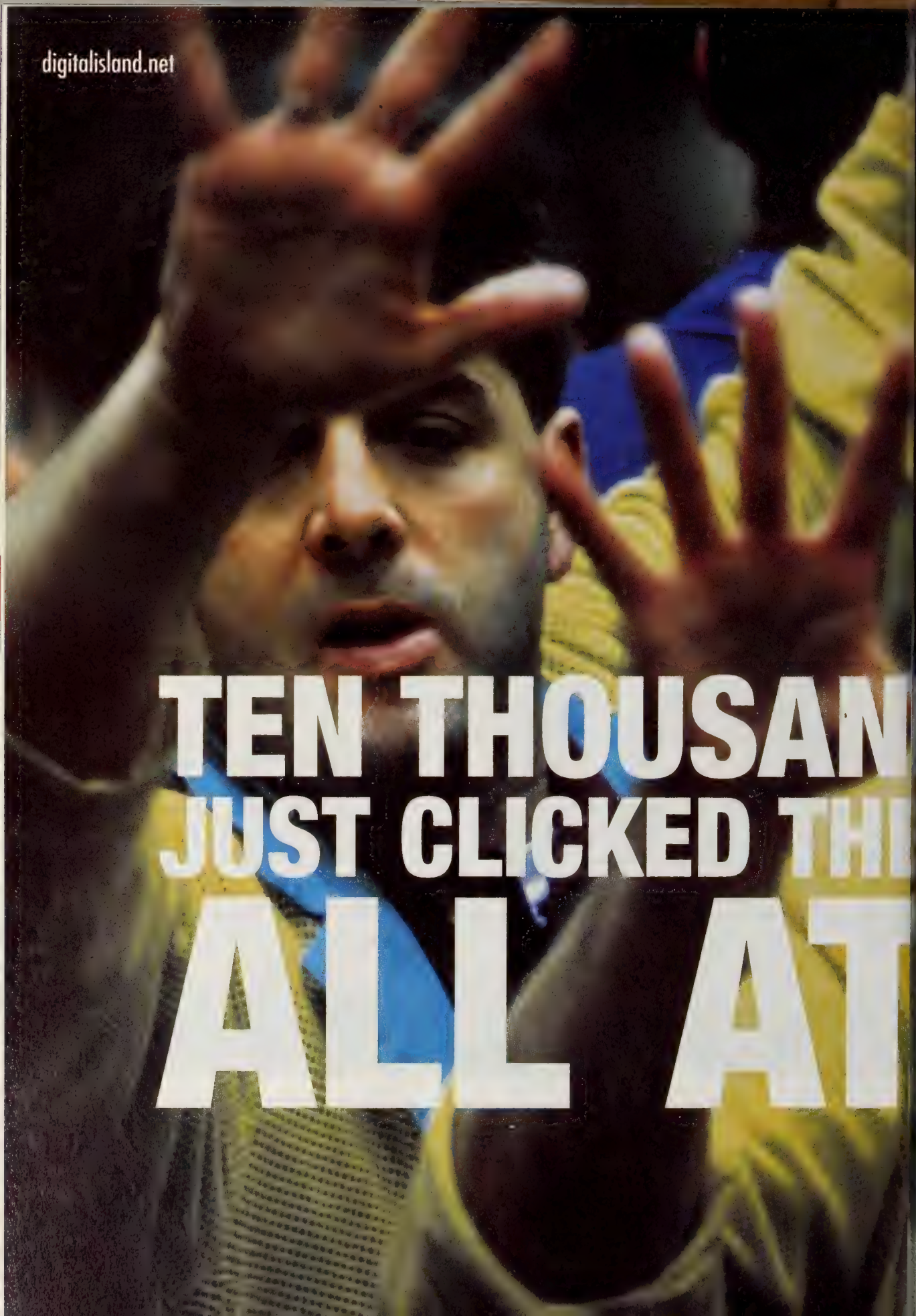
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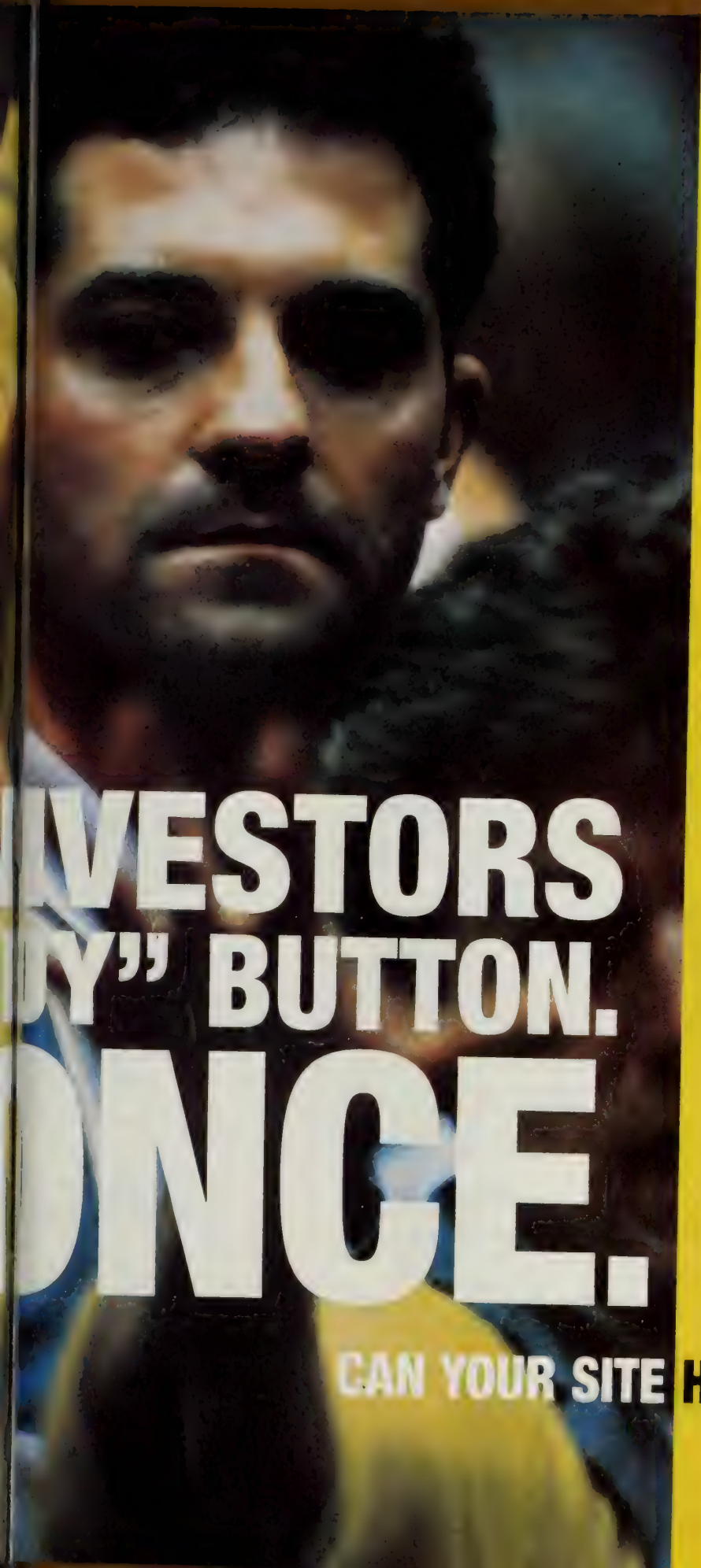
TEN THOUSAN
JUST CLICKED TH
ALL AT



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CHARTER SCHOOLS: THIS DEBATE IS FAR FROM OVER

"For-profit schools" (Cover Story, Feb. 7) did an excellent job of describing the fundamental structural change that charter schools are bringing to the world of education. It described the rich diversity of schools that are achieving success in urban and suburban settings and the passion for educational excellence that parents, teachers, and administrators bring to these schools.

But the question isn't "Can private companies do a better job of educating America's kids?" any more than it was "Can Federal Express deliver packages better than the Post Office?" or "Can Japanese companies build better cars than American manufacturers?" The real question is whether a competitive model is more likely than a government monopoly to improve educational quality.

The promise of school choice is that private companies and others will invest in innovative educational programs and cost-effective management infrastructure to attract students, a.k.a. "customers." School boards will respond to that challenge in order to keep (or win back) those customers. Sort of like the real world.

Michael J. Connelly
Chief Executive
Mosaica Education Inc.
New York

By willfully excluding students v
have the greatest needs, for-profit e
cation has left out in the cold the c
dren who need the most restructu
in services. As a school psycholog
I'm appalled by the lack of outrage
taxpayer-funded separatism outla
decades ago. As an investor, I h
shorted these stocks waiting for a
discrimination lawsuits to send th
companies to the grave. This educat
al fad will also pass.

Craig Va
Alexandria,

When I see a for-profit school t
teaches the same percentage of learn
impaired, bilingual, attention-deficit-
order (ADD), and physically/medic
handicapped students as the pu
schools; that offers the same athl
and other extracurricular experien
for all kids; that produces the same
cilities without raiding public bond m
ey; and that still manages to show
nificant gains in achievement, perh
I'll find more merit to the argument

As a parent of middle-schoolers
high-schoolers, as well as being a
year veteran high school teacher, it
furiates me to see my tax dollars
school funding siphoned away from
kids who need it most. Most of
schools you featured do not provide
vices for those with learning disal
ties, bilingual education, or support

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with ADD. They also don't usually interscholastic athletic programs, lunch programs, or security guards. ? Because they don't have to. So as ıyer dollars leave the public schools, ired by law to educate everyone, ıre left with less and less as we with an increasing proportion of ents who require more and more.

ɔw about finding public schools that ork, highlight their attributes, and ırage corporations to put money public schools willing to make these ges? We already know the formula works: excellent and well-paid ıers, a curriculum with high expec- ns that addresses multiple learn- styles, parent/community involve- , low class size, frequent feedback communication on students, and a maintained facility with adequate ıology.

s pathetic that in the longest-lasting ɔmic boom we've ever experienced ır country, public education should to go begging for dollars to fund programs.

Jennifer Grant Prileson
Tucson

vas dismayed to find that you had considered Nobel Learning Com- ties, the profitability leader in the ɔl market. The achievement levels ır students are exceptional, with -graders at fifth-grade levels, sixth- ers at ninth-grade levels, and h-graders at post-high school levels ading. Also note that our "first" ıer school was profitable, and we ct all to be. Our administrative average only 7% of tuitions, com- l with much higher overhead num- of our competitors. Making a prof- hile producing students whose vement levels are above national s is not a futuristic theory but a y today at Nobel.

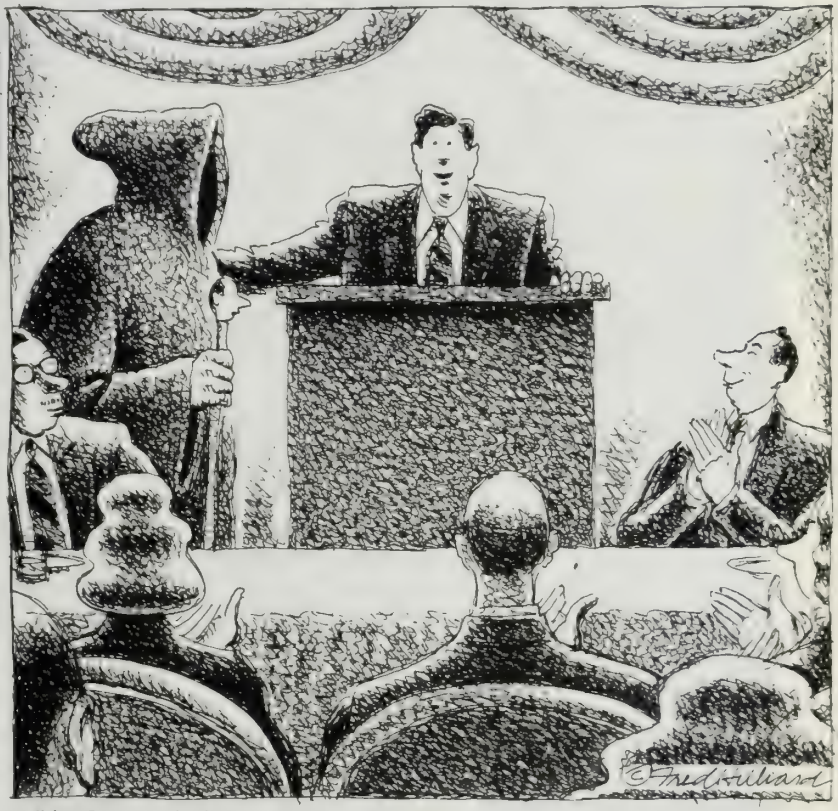
A. "Jack" Clegg
Chief Executive
Nobel Learning Communities Inc.
Media, Pa.

UNTANTS NEED CLEAR, ERN RULES TO GUIDE THEM

you can't trust the auditors..." ɔrials, Feb. 7) raises legitimate con- about independence violations at arge accounting firm. The public he right to expect accountants to v the rules. When the rules are ɔllowed, scrutiny is warranted, and ɔpriate punishment necessary.

t it's nonsense to suggest that the ɔect of getting rich quick by in- ɔg in Internet startups is causing ors to "bend the rules." The core s of the certified public accountants—honesty and integrity, objectivity and independence, commitment to quality, and professional expertise—have not changed. Nor has the profession's commitment to ensuring that auditors apply the latest in audit methodology and technology to provide real value to our financial system.

CPAs play a critical role in protecting the public interest and in promoting the smooth functioning of our capital markets. Objectivity and independence are professional obligations we take seriously. However, the profession has the right to expect the rules to remain current and relevant. Many of the independence rules for auditors were created decades ago, before working spouses and ubiquitous 401(k) plans, for example. No one disagrees that auditors must remain independent from the companies they audit, but forcing partners' spouses to divest themselves of their pension plan because it includes investments in an audit client supervised by a partner they don't know 3,000 miles



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away defies common sense. It's time to write independence rules that make sense in today's world.

Barry Melancon
President and CEO
American Institute of
Certified Public Accountants
New York

Given the self-serving statement by the partners of PricewaterhouseCoopers that their "conflict-of-interest rules are too byzantine to understand...," they have pushed themselves down to the low level of other professionals, i.e., physicians who thought that it was O. K. to cheat the government because the rules were too complex for them; lawyers who have become the butt of jokes about their lack of morals; and politicians who have rightly earned low scores for integrity. I think most Americans believe it is the auditors who are to be relied on to cut through the ambiguities and obfuscations in organizations. Now the auditors claim they cannot even follow their own rules. The last trustworthy profession seems to have lost its focus—and status.

Ray L. Brown
Rancho Cordova, Calif.

SCHWAB'S NEW FEES DON'T BENEFIT ORDINARY INVESTORS

I was disappointed with "The price is sliced" (Finance, Feb.14). Charles Schwab & Co.'s online brokerage is slicing prices in half for traders and thus becoming more competitive. The deal is not competitive or advantageous to customers. Actually, many Schwab customers are disturbed and insulted by this supposed price cut and are considering changing to other brokerages.

To reduce the price of their trades, Schwab investors must maintain a minimum of $50,000 in their accounts, which is high for average investors and doesn't apply to more than half of online traders. Also, Schwab, the article claims, cuts its commission "to $19.95 after an account's 30th trade in a quarter, and to $14.95 after the 60th trade." Thus, to achieve this low rate, investors must churn their own accounts.

How is this deal competitive when an investor can, for example, trade with Ameritrade for a mere $8 per trade (roughly half of Schwab's "special" rate) with a $500 minimum (as opposed to Schwab's $50,000 minimum) and no minimum number of trades. Ironically, those who maintain a $50,000 minimum to attain Schwab's rate will have to trade frequently. Their profits will be eaten up by commissions to Schwab, which in turn might cause their portfolios to go below $50,000.

Eric Sterling
Montgomery, Ala.

TAKE A CLOSER LOOK AT STARWOOD'S BOARD

We were surprised by your characterization of the Starwood Hotels & Resorts board as "loaded with insiders and friends of founder CEO" in "The best and worst boards" (Special Report, Jan. 24). These are the facts:

Barry Sternlicht, chairman and CEO, is the only insider on our 15-person board. No insiders are on the audit or compensation committees. In April, 1999, Starwood reduced the size of the board while adding five new independent directors, including former Senator George J. Mitchell and CEOs and board members of other highly respected large-cap companies. Accordingly, we believe an objective assessment would conclude that Starwood has an independent, shareholder-focused board.

F. Daniel Gibson
Senior Vice-President,
Corporate Affairs
Starwood Hotels &
Resorts Worldwide Inc.
New York

AT THE CITADEL, COEDUCATION HAS TURNED THE CORNER

"Storming a bastion of machismo" (Books, Jan. 31) does justice to the book, *In Glory's Shadow*, but the book in no way does justice to the Citadel. How could the Citadel be as bad as the book's author, Catherine S. Manegold, would have readers believe and still have produced successive generations of leaders who have served their country and communities with distinction?

When the Citadel first admitted women in 1993, every faltering step we took was broadcast around the world. The story of coeducation at the Citadel since that time is not so sensational but of immensely greater consequence. The 63 young women currently in the South Carolina Corps of Cadets include academic, military, and athletic leaders. Our first woman cadet graduated last May. The young woman in the Class of 2000 is the second-highest-ranking officer in her battalion. Another woman has just become the editor of the campus newspaper. Women athletes are establishing viable teams for Southern Conference competition. Furthermore, our admissions office, which is receiving applications at a record pace, has experien 33% increase in female applicants this time last year.

Our shaky beginnings with coe tion are a well-documented part 157-year history, and the turbuler those days will continue to provid terial for enterprising writers. Bu unheralded story—that the Citade been successful with coeducation— real one.

John S. Gri
Major Ge
U.S. Marine Corps
Pres
The C
Charleston,

BLACKS ON THE WEB: LET'S N CREATE A BACK-OF-THE-BUS

I find it sad that Roger O. Cro and B. Keith Fulton would advoca segregation of the Internet and o sites based on skin color ("Atte must be paid," e.biz, Feb. 7). Crockett finds it "shocking that e merce giants like Amazon.com have ethnic book sections," I find couraging. I do not want Intern tailers to set aside a section of the bus" where they will make assum about which products I want t based on the color of my skin.

Howie S
Amissvill

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:O
c of Human Destiny
rt Wright
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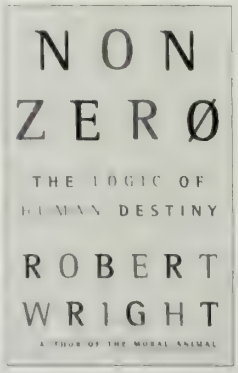
HUMANITY GETTING TTER ALL THE TIME?

u plan to tackle Robert Wright's llenging new work, *Nonzero: The ic of Human Destiny*, consider the last chapter first. Wright duced an erudite and optimistic uch of which reads like a scien- gument. But at heart the book is thics and destiny, not science. If turn to the conclusions first, it easier to see where the scientif- noral arguments fight each other. ou can put all that aside and sa- graceful writing and the rush tinted ideas.

's what Wright spells out in the pter: Society and culture are the of an evolutionary process that biological evolution. But the re- e not random. The human race is g its "destiny," which ven be the work of igher power. Biologi- cies and human civi- are both moving in- ly toward greater nnectedness and com- —which is a good according to this au- 'hink brain, or the In-) What's more, in 's view, social com- leads to morality—and ething that even re- redemption. "It may literally be he power of our species to swing moral scales...decisively in the n of good," he writes. "Maybe it o us, having inherited only the nbiguous evidence of divinity, to ct clearer evidence in the future." iny, divinity, morality. These con- e troublesome if you are thinking ntific terms. And the bit about cting clear evidence sounds like vs too, in the context of science. o skirt this problem, Wright pre- is social evolution in the cool, ra- anguage of game theory. Simply put, in a zero-sum game, one side always wins, and one loses—often brutally. When it's non-zero-sum, neither side is an abject loser, and both may win big. As societies evolve, Wright believes, non-zero, as in the book's title, triumphs over zero-sum.

The author, a former senior editor at *The New Republic* whose earlier books include the acclaimed *The Moral Animal*, deflects serious criticism by delivering difficult arguments in a flippant writing style. In the early chapters, he dances through six or seven millenniums of human history, exploring as he goes the rise of agriculture, written language, commercial contracts, and the anthropology of primitive societies. Wright's goal is to prove that even the most violent twists and turns don't divert civilization from its upward course. He doesn't succeed. But his glib style moves the debate along at a jaunty clip. Roman emperors, for example, are found in one chapter bribing Attila the Hun to stop his pillaging. After that, says Wright, he does "what any normal human would do after getting a big paycheck: go shopping."



Wright's discussion turns implausible, however, when he piles example upon example of how nearly everything in human history contributes to the greater good: war, barbarism, pestilence. "Encouragingly," he writes, "people seem to grasp all of this non-zero-sum logic. Nuclear powers tend not to have wars with one another." And a bit further: "Barring a reversal of time-honored trends, poor nations will get richer, making war a remote prospect in an ever-larger part of the planet." One hopes that India and Pakistan are paying close attention.

When it comes to proving the exis-

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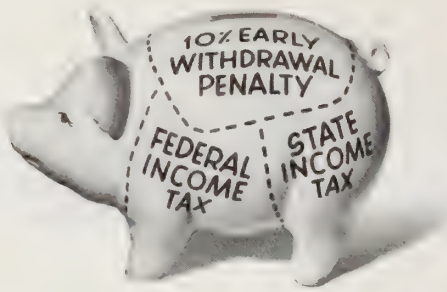

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biologist Stephen Jay Gould, wh
takes to task here and in othe
ings. In his own books, Gould ove
the boundaries of scientific debat
he argues, in quasi-scientific term
human and cosmological events a
dom and not predestined. As bot
ers should know, the point can ne
proved either way.

In the second half of the
Wright tackles the origins of li
evolution of complex animals fr
gle-celled organisms, and the eme
of consciousness—all of which s
reinforce the model of social a
tural evolution laid out earlier. Th
news is, we're on turf that is
friendlier to the scientific metho
Wright has a comfortable grasp
Darwin and molecular biology. H
moral arguments still don't was
ther does the pat, mystical dig
about the unknowable nature
sciousness. "A truly scientific p
tive," says Wright, "shows con
ness...to be a profound and p
eternal mystery, and a suggestive
say the least. And divinity isn't t
thing it suggests.... A strictly e
analysis of both organic and c
evolution, I've argued, reveals a
with direction...."

The theories of cultural evoluti
Wright defends in this book have
history and many well-known fla
one thing, when it comes to cu
music, art, language, theology—t
no obvious aesthetic hierarchy. (
of a lower order than John Coltr
Plato lower than Kant?) And for a
objective veneer, Wright's categ
complexity and "non-zero-sumne
ry strong evaluative assumptions
social evolution he espouses had a
dimension, then tribal societies
be not merely underdevelope
morally backward as well. This
ways been a problem with Soci
winism. And by equating non-ze
ness with moral behavior, Wrigh
right in the thick of it.

Finally, there is the problem
vival, which is the purpose and th
of evolution as Darwin saw it.
19th century, humans lacked th
nology to destroy life on earth.
we have that ability. Is that prog
want to share Wright's belief in
But I would never ask science
vide the evidence.

BY NEIL

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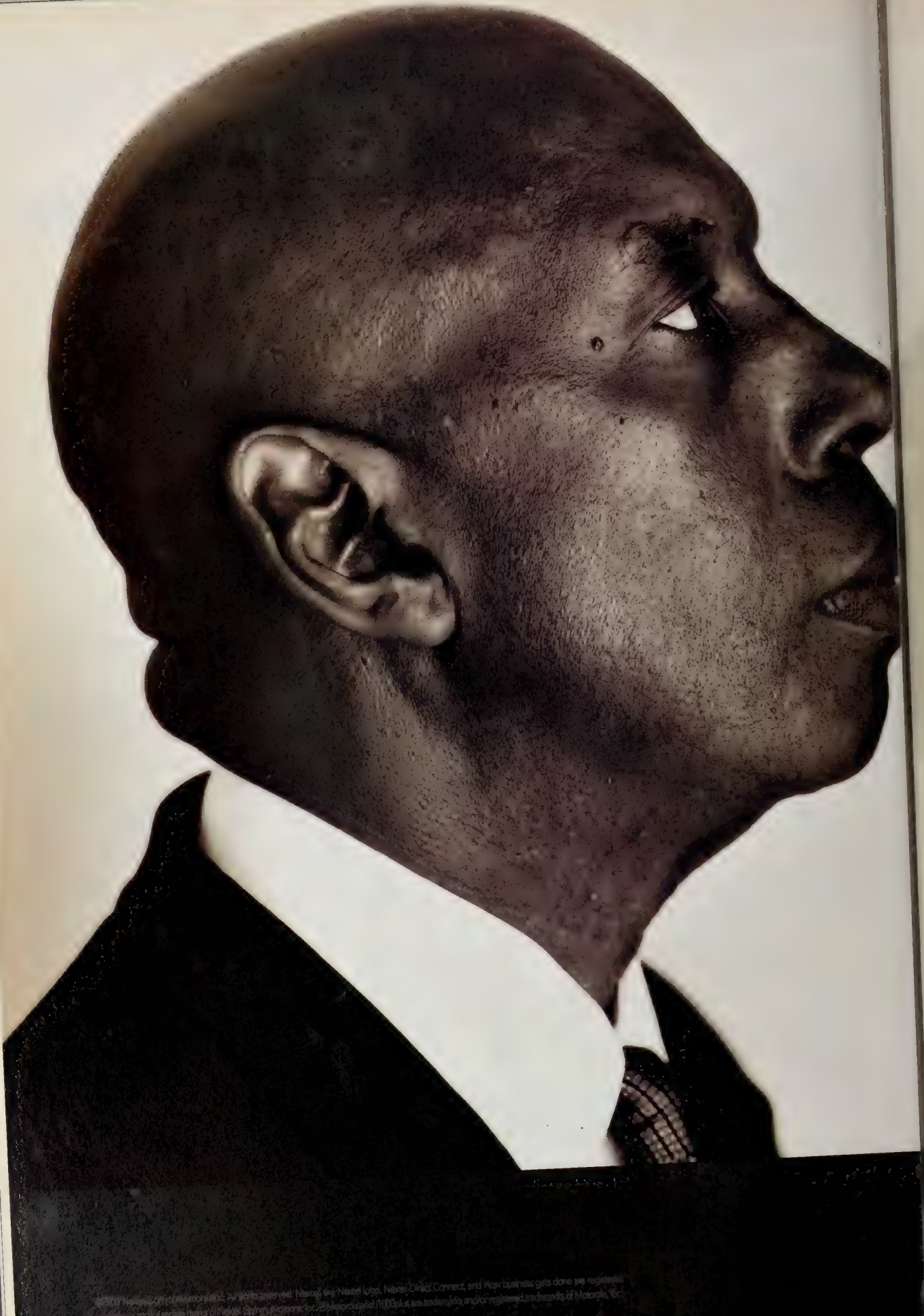

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BY STEPHEN H. WILDSTROM

MAC HITS ANOTHER HOME RUN

Apple's long-awaited new operating system makes Windows look dingy

In designing new software, especially the operating systems that control a computer's basic functions, developers face a difficult choice. Incorporating the best and newest technologies requires changes that can leave the owners of older hardware and software in the lurch. The alternative, which lets you keep using your favorite software, can limit the adoption of new and useful features.

POLISHING UP THE OLD APPLE
The display for the Mac OS X includes several innovations, including new organization features and translucent windows

Microsoft Corp. has preferred the evolutionary course of maximum compatibility, especially in consumer products such as Windows 98. Rival Apple Computer Inc. has been much more willing to make radical breaks with the past. This difference in approach will be starkly displayed in the second half of this year, when Apple and Microsoft both release new operating systems. Windows Millennium Edition (or Windows ME, as Microsoft wants it to be called), is a modest overhaul of Windows 98. But Apple's Mac OS X, as in "10," breaks with 15 years of Mac software for a new digital heart that, in effect, makes the Mac OS a user-friendly version of the Unix operating system. OS X has a dramatic new look and feel.

Millennium's most significant change is the elimination of a mode required to run old DOS games, a move that should make Windows boot up faster and run more reliably. Millennium is designed to work particularly well on new PCs that lack older accessories, such as floppy drives and serial ports.

It also has features that protect critical files from deletion or overwriting. And it is supposed to sleep and wake up more reliably, though I've heard that before without seeing much improvement. Millennium will ship on most new consumer computers by yearend. But based on a test version, it may not offer enough to make it worthwhile to upgrade existing PCs.

OS X, which is intended for everyone from first-time iMac buyers to graphics-arts pros, is a horse of a different color. It's the fruit of Apple's 1996 acquisition of Steve Jobs's NeXT Software. OS X is based on the same core code that powered the NeXTSTEP operating system, as well as Linux and other forms of Unix. This will cure some shortcomings of the Mac, especially its inability to run multiple programs simultaneously and efficiently.

The more obvious change is a complete redesign of screens for displaying information. They do for the user interface what the iMac did for hardware design, including liberal use of the iMac's now-familiar blue-and-white color scheme. One novel feature: Windows that allow objects that would otherwise be hidden beneath them to show through, making it easier to understand the organization of the desktop. Buttons that control windows change color and light up to indicate their function as the cursor passes over them—for example, becoming a glowing red light to that clicking will stop a eration or close a wi More important, Appl adapted Adobe Systems Acrobat technology to duce crisper graphics more readable type.

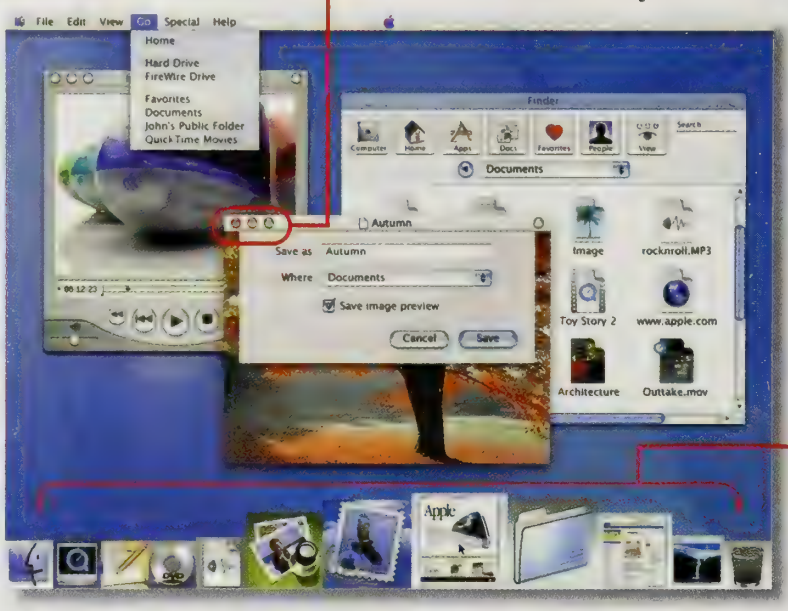
The intensive use of g ics requires a lot mor cessing power than computers can muster. X will run only on Macs ered by a G3 or G4 Computers purchased mid-1998 will be stuck older versions of Mac's ating system.

In addition, all Mac ware will need an ov to take full advantage o Apple is working to en smooth transition, bu owners will have to u lots of software. App not made OS X av for testing, but ba demos, I think th ter performance, s ty, and ease of us be worth the trou

Sooner or late crosoft will have t this bullet. Windo was supposed to last version based legacy of MS-DOS. get a promised co

version of Windo on time, Millenniu designed as a st In a year and a so, Microsoft will have new consumer version business-oriented Wi 2000, but the compa not decided what the f will be—or how far it to maintain compatibilit older hardware and so

Meanwhile, Apple is to regain the software- leadership it earned w original Macintosh. I clear how much grou will gain for Apple, b renewed competition c benefit consumers.



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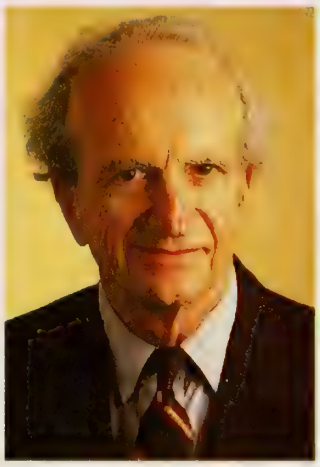
BY GARY S. BECKER

THE HIDDEN IMPACT OF NOT TAXING E-COMMERCE



FIRST STEP: No cyber levies could lead to reduced sales taxes–and that, in turn, might mean less tax revenues to fuel the growth of government

Gary S. Becker, the 1992 Nobel laureate, teaches at the University of Chicago and is a Fellow of the Hoover Institution

A federal commission is badly split over whether to allow states to tax interstate commerce conducted on the Internet. The supporters of a moratorium on taxation, including Senator John McCain, former Presidential candidate Steve Forbes, and to some extent Vice-President Al Gore, believe that Web sales should not be taxed in order to encourage the growth of this revolutionary new medium for commerce. This argument is weak, but there is a much stronger case for excluding Internet commerce that relies on political-economy considerations.

Let's begin with the 150 American tax economists, conservatives as well as liberals, who are supporting a petition against continuing the moratorium on taxation of cybershoppers. They argue that the growth of e-commerce should be driven by its convenience and competitive advantage, not by special subsidies. To make collections easier, they want taxes to be based on where consumers live, not on the location of e-commerce producers.

The argument for taxing Web sales relies on the concept of economic efficiency. When Internet commerce is exempt from sales taxes, some consumers buy over the Web simply because it it cheaper, not because it is more efficient or convenient. They use the Internet only because tax advantages artificially lower the cost of Internet purchases compared with traditional retailers. This is why the petition favors the same sales tax rate on Internet and brick-and-mortar retailers.

FALSE ASSUMPTIONS. University of Chicago economist Austan Goolsbee shows that the rapid growth in e-commerce is in good part due to the tax factor. He finds that Internet sales have grown more rapidly in states and localities that have higher sales taxes on retail shopping.

My economist colleagues are correct in their analyses of the efficiency effects of exempting e-commerce from taxes. But their perspective is too narrow and they do not go far enough. Their recommendations are crucially dependent on the assumptions, never made explicit, that both other taxes and government spending are independent of whether the Internet is taxed. Yet one does not have to be a cynic about governments to recognize that these assumptions are false. For their analysis of the effects of Internet taxes on revenues and spending is stati ignores the dynamic changes these taxes on the behavior of individuals, busin and politicians at the state and local le

If Internet sales are permitted to be at a lower rate than brick-and-mortar ers, these retailers are likely to put s pressure on politicians to greatly lowe haps even eliminate, taxes on their sa well. If they are politically successfu rates on conventional and Web sales become more equal, but at much lower than at present. By contrast, the tax mists' petition advocates equal treatm the present high tax rates imposed o ventional merchandisers.

SMALLER GOVERNMENT. A more rel analysis would also incorporate the co sense belief that public spending rises governments can tax more readily. Internet continues to receive special e tion from all sales taxes, it should slo increase in overall tax revenues an slow government spending. Once this is recognized, the case for taxing In sales would not be persuasive, especi persons who are concerned about th of governments.

Clearly, the link between taxes and spending is not unique to Internet taxa colleague, Casey Mulligan, and I have that public spending in most democracie in fact grow faster when government easier access to more efficient taxes, s sales, value added, and social security According to our analysis, it is not sur that both the Republican-dominated Co and President Clinton have proposed increases in federal government spend response to the almost $2 trillion sur the federal budget anticipated duri coming decade. This is why I conti maintain a prediction in an earlier BU WEEK column that most of the surplus spent on government programs such a ical care and social security rather th mitted to individuals and businesses t tax reductions.

Of course, not everyone will like the plications of Web tax exception. But these effects on overall tax policy a size of government must be included complete evaluation of whether e-com should continue to be exempt from sal other taxes.

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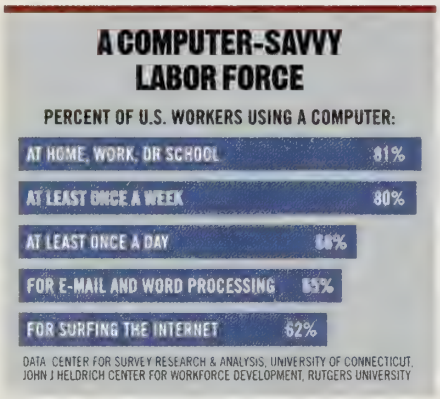
BY GENE KORETZ

WORKERS WANT A HIGH-TECH EDGE

Computers lift their aspirations

If a new nationwide survey of more than 1,000 U. S. workers is any indication, plans by Ford Motor Co. and Delta Air Lines to offer their employees computers and Internet access for a nominal monthly fee should prove highly popular. The survey, conducted by Rutgers University's Heldrich Center for Workforce Development and the University of Connecticut's Center for Survey Research & Analysis, found that the majority of workers not only use computers every day but feel that they have improved their lives.



About two-thirds of those surveyed reported that they use computers at their jobs, and 68% reported they have access to at least one computer at home. Altogether, some 81% used computers in the month prior to the survey.

Such usage can be fairly intense. Virtually all workers who use computers boot up at least once a week, and about 85% of this group (more than two-thirds of those surveyed) indicate that they use them at least once a day—in most cases, for at least an hour. Indeed, the survey indicates that working Americans spend an average of three hours of each work day at their monitors.

Of those using a computer at work, the great majority (87%) said they use it for job-related activities, with e-mail, word processing, browsing the Net, and gathering news and information leading the list of applications. Less than 16% indicated that they sometimes use their computers at work for such personal activities as shopping online, paying personal bills, or playing games.

While workers have often felt threatened by technological change in the past, that's clearly not the case today. Some 58% of those queried agreed that computers had changed their lives for the better, compared with 20% who disagreed. Only 7% were worried about losing their jobs because of new technology, and 77% felt that new information technology is good for the economy—with those making less than $40,000 a year actually more enthusiastic than those earning more.

Interestingly, although most workers believe they have the computer skills needed to perform their current jobs, only 23% said they learned to use a computer at work. Moreover, half think they will need more computer skills to achieve their career goals, and 44% do not believe that their employers do a good job in providing them with computer training opportunities.

Such concerns throw light on one curious finding in the survey. Although workers are more secure and more confident about the economy than in past surveys, their job satisfaction has actually declined a bit. The apparent reason, say the researchers, is that the boom has made them eager to reap the potential rewards that they believe the computer revolution offers. Thus, Ford's and Delta's plans to put their employees online could pay big dividends—in both worker satisfaction and productivity.

HOW THE BULL SPREADS CHEER

Even noninvestors may spend more

If there's any one catalyst that has kept the economy roaring ahead in recent years, it's the so-called wealth effect from the stock market boom. As stocks have vaulted to unprecedented heights, so has household wealth—prompting newly rich consumers to forego saving and spend with abandon.

But the wealth effect may not be so straightforward: At last count, slightly less than half of households held stock in any form, and probably less than a quarter hold very much relative to income. Thus, it seems likely the market is working its magic on consumer spending in less obvious ways.

One such route is suggested by a recent study by economist Maria W. Otoo of the Federal Reserve Board, who uses econometric techniques to examine the well-known tendency of stock prices and consumer sentiment to move in tandem. Not surprisingly, her study indicates that it is changes in stock prices th fluence consumer sentiment rather vice-versa.

The most intriguing aspect of findings concerns the reason for th fect. Analyzing the responses of vidual consumers to rising stocks i mid-1990s, she finds no significan ference between the positive reac of those who don't have stock hol and those who do. She concludes t bull market boosts consumer senti less because some folks are ge wealthier than because most peop gard it as a sign of good times ahe the economy and their own earnin

That doesn't mean that there i direct wealth effect on consumer s ing. What it does suggest is that th pact of the stock market on cons sentiment and behavior may be more pervasive than some people

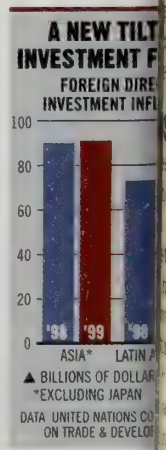
A CAPITAL SURG TO LATIN AMERI

It led developing regions last y

The good news for developing is that foreign direct invest (FDI) did not decline last year i wake of the 1997-98 financial cri was widely anticipated. The good for Latin America, reports the Conference on Trade & Develop is that such inflows jumped 32%, billion, placing the region ahead o for the first time since the mid-19

Although FDI flows to developin edged up by 1%, to $91 billion, and Singapore racked up gains o and 20% respectively, and inflo Taiwan jumped twelvefold, to $2. lion. By contrast, investment in the region's major recipient, fell just over $40 billion.

Meanwhile, Latin America ben from a surge in inflows to Argentina, where total FDI rose from $6 billion to $25 billion, and to Brazil, where it climbed from $28.5 billion to $31 billion. In both countries, the privatization of state enterprises has sparked a wave of merger and acquisition activity by foreign investors.



MES C. COOPER & KATHLEEN MADIGAN

INTER WINDS REN'T SLOWING THIS ECONOMY

wth is staying robust this quarter despite some wan January stats

J.S. ECONOMY It is often true that January data tell you more about the er than they do about the economy. Is this one of times? Or is the economy slowing, as some of the suggest? That surely would please Wall Street he Federal Reserve, since cooler growth could all further hikes in interest rates.

vever, a close reading of the numbers suggests a own is more wishful thinking than fact. Weather d the January data—sometimes up, sometimes . Job growth soared because the Labor Dept. ts survey during a mild week. Then the winter d harsh, keeping shoppers indoors, which de- d the month's retail sales. But despite the deep and snowstorms, builders still managed to break d on more new homes.

NUFACTURING IS HING MOMENTUM

The strongest argument against a meaningful moderation in growth comes from the industrial sector. Manufacturing, unfazed by winter's whims, is accelerating (chart). Based on past patterns, it would be highly unlikely that overall growth is slowing at a time when this extremely cyclical segment of the economy is speeding up.

at's more, factories are using their production ty at the fastest rate in a year and a half, ad- for the bounceback after the 1998 auto strike. ation rates are far from levels that would fore- w capacity bottlenecks and upward pressure on d goods prices. But at the current paces of output apacity, some capacity strains would develop by cond half of the year.

STRIAL PRODUCTION scored an unexpectedly ssive 1% gain in January, particularly since a er-related surge in utility output added only a tenth of a percentage point. Except for the trike rebound, January's was the largest advance months. Output in manufacturing alone increased vny 0.9%, led by a rebound in business equipment rong gains in a broad array of consumer goods. r growth in exports is adding its own punch to anufacturing surge, which is already pushed by ng domestic demand, since U.S. producers of goods export more than a fifth of their production.

The sharp pickup in equipment output follows almost no advance in November and December. Many businesses appear to have put some equipment purchases on hold until after the Y2K date change, so they could then better assess their needs. January's speedup suggests that capital spending, which slowed sharply at yearend, is turning around this quarter and will add handsomely to growth in real gross domestic product.

Clearly, any premillennium inventory building is not standing in the way of output growth in the new year. True, business inventories grew quickly in the fourth quarter, by themselves adding 1.2 percentage points to the quarter's 5.8% GDP growth. Still, that rapid stock buildup did not keep pace with demand. Inventories in manufacturing and wholesale and retail trade increased 0.5% in December, but business sales rose 1.1%. That's been a long-running pattern: During the past year, business stockpiles have grown 4.6%, but sales are up 9.2% (chart). By the end of last year, the ratio of inventories to sales had fallen to the lowest level on record.

FASTER STOCKPILING, BUT EVEN FASTER SALES

Manufacturing output, although speeding up, is not keeping up with demand, either. Excluding aircraft, the factory backlog of unfilled orders is rising rapidly. That means there is an increasing number of orders already in the pipeline that will continue to power industrial production in the months ahead.

ALL THIS IS WHY CAPACITY USE is on the rise. It had languished in 1998 and much of 1999 as export growth plummeted from 16% yearly in late 1997, to zero a year and a half later. The utilization rate for all industry reached 81.6% in January and 80.6% in manufacturing. Those rates will rise much higher this year, and they will increase faster than in recent times. That's because the 1998-99 weakness caused many industrial companies to rein in their investments in new equipment, mostly for the more than 50% of outlays not going to information-processing gear.

Meanwhile, industrial capacity is now growing only 4% annually, down sharply from a peak growth of 6.4% in late 1998. Consequently, if industrial production and

capacity were to grow at their paces of the past four months, the utilization rate would hit 83% by summer. That rate is usually one associated with increasing production bottlenecks and pricing pressures.

WHAT'S FUELING THE OUTPUT GAINS, of course, is demand, especially by consumers. That's why the January retail sales data bear close scrutiny. They showed that sales rose only 0.3%, and, excluding car buying, they fell 0.3%, the first decline in more than two years.

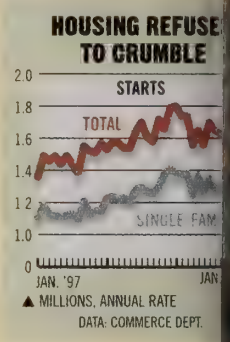
But some Y2K-related anomalies were clearly at work. Note that December receipts were boosted by outsize gains in sales of food and drugs, both of which posted sharp drops in January. Taken together, December receipts for those two categories registered the largest monthly increase in 20 years, and the January plunge was the biggest in two decades.

In addition, the boom in e-tailing caused a December upward spike in the category covering catalog and Internet sales. That category posted a decline in January. Moreover, extremely bad weather in the second half of the month added its own downdraft.

Because November and December retail sales surged 1.3% and 1.7%, respectively, even the slim January increase puts sales in the first quarter well above the fourth-quarter average. That means real consumer spending in the GDP data is already on track to post a solid advance this quarter of about 4% at an annual rate, and it could be even greater depending on strength of spending in February and March. On score, weekly retail surveys show that February b is off to a very good start.

Solid consumer fundamentals are why housing most interest-rate sensitive sector, is not crum despite higher rates (chart). January housing s rose a surprising 1.5%, to an annual rate of 1.78 mi lifted by a big increase in apartment building. though single-family starts dipped 2.1%, building mits posted the largest increase in two years.

Builders do seem more cautious about the future, based on their February survey of housing-market conditions. They say they are tempering their sales expectations as a result of higher mortgage rates, but they still see continued strength in the market for new homes. Their February index of market conditions dipped to 68, from 71 in January, although that's still a relatively high level.



Notwithstanding the weakness in retailing, it clearly take more than ol' man winter to throw a over this economy. Look for interest rates to com about the same time as the daffodils and crocuses

BRAZIL

LAYING THE GROUNDWORK FOR RECOVERY

After two years of virtually no growth, Brazil's economy is coming back to life. Real gross domestic product grew 1.4% in the fourth quarter from the third. Meanwhile, industrial production surged 3.1% in December, its biggest leap in 19 months.

In recent weeks, economists have slightly raised their estimates for 2000 GDP growth to 4% (chart). However, the pace of the recovery will depend largely on the Central Bank's ability to reduce the 19% benchmark interest rate. Since the bank has vowed to fight inflation, it is wary of big rate cuts. But with consumer prices rising just 8% annually, the bank is expected to trim the rate by at least 25 basis points by April.

The government is also starting to tackle its $65 billion budget deficit. The drop in interest rates from 45% after the January, 1999, devaluation of the real to the current level will allow the deficit to fall from 10.6% of GDP to under 4% by yearend.

Importantly, Brazil is making structural changes that will help the fiscal accounts over the long term. In a special session that ended Feb. 14, Congress moved to limit federal, state, and local government spending and to ban the hiring of public employees in the last six months of an elected official's term. But the measures must be approved by the Sena in March or April.

After weakening to below 2 the dollar last year, the real ha strengthened to 1.77, close to i best level since last July. Mean while, foreign direct investmen hit a record $29 billion in 1999 and should surpass $20 billion again in 2000. The São Paulo stock exchange is up 49% in do terms over the past three mon on renewed optimism about th economy.

As for Brazil's trade accoun the 1999 devaluation is finally starting to pay off. A $4 billio surplus is expected for 2000, compared with a $1 billion def last year. But the surplus coul be threatened if consumer demand for imports surges durin the recovery.

By Ian Katz in São P

A BIG BAD COMPETITOR CAME TO TOWN, THE LITTLE TOYSTORE DIDN'T CAVE IN TO HEAVY DISCOUNTING OR MARKETING MUSCLE. INSTEAD, THEY CALLED ON SUN MICROSYSTEMS, OT IN .COM, AND HOOKED UP WITH iPLANET™ E-COMMERCE SOLUTIONS. iPLANET SOFTWARE HELPED THE TOYSTORE QUICKLY LEVERAGE THE BOUNDLESS POWER OF THE INTERNET TO T THEIR BUSINESS. THANKS TO THE BROADEST PORTFOLIO OF E-COMMERCE SOFTWARE, SERVICES AND PARTNERS, THE TOYSTORE'S BUSINESS SYSTEMS WERE RAPIDLY INTEGRATED H NEW WEB-BASED APPLICATIONS, SALES AND PROCUREMENT WERE AUTOMATED, AND CUSTOMERS WERE ABLE TO BUY AND TRACK THEIR PURCHASES OVER THE WEB. SUDDENLY, THE LITTLE RE COULD DO BUSINESS IN A WHOLE NEW WORLD. IT BECAME POWERFUL AND FAR-REACHING BY ENTERING NEW MARKETS AND BUILDING A GLOBAL SUPPLY CHAIN ALMOST HT. IT EVEN HAD ACCESS TO COMMUNITIES WHERE LIKE-MINDED BUSINESSES GAVE NEW MEANING TO PARTNERSHIP AND ECONOMIES OF SCALE. THE LITTLE TOYSTORE WENT BIG. AND COMPETITION WENT HOME. IS THE STORY THAT SIMPLE? IT IS. AND IT CAN BE FOR YOU. iPLANET WILL PULL EVERY ASPECT OF YOUR BUSINESS ONLINE TODAY, WHETHER YOU ARE AND-NEW OR STEEPED IN TRADITION. ONCE YOU'RE ONLINE, YOU'LL SEE THAT THERE'S NO SUCH THING AS A "SMALL" BUSINESS ANYMORE, ONLY SMALL THINKERS. AIN'T IT GRAND?

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LOCKING OUT THE HACKERS

How to safeguard the Web

The Cabinet Room in the White House was chock-full of high-tech talent. The group included Internet pioneers Vinton G. Cerf and David J. Farber, Cisco Systems Inc. Chief Information Officer Peter Solvik, and more than three dozen other experts from industry, academia, and government—and, of course, President Clinton. They gathered on Feb. 15 to brainstorm over Net security, following a rash of cyber attacks on the world's most famous Web sites. These assaults highlight "how vulnerabilities at one place on the Net can create risks for all," Clinton told the audience. "I don't think we should leave here with a vast sense of insecurity. We're all here; we're going to figure out what to do."

Making the Net more secure is a challenge—and it won't come cheap. But it certainly isn't impossible. Net-heads already have developed a panoply of technologies, such as digital signatures, software filters, and schemes to authenticate people as well as the messages they send. Some of those fixes would make it difficult to fake the address on a data packet that travels the Internet, hamstringing online criminals. In the most extreme scenarios, every packet would be traceable, every sender visible.

Privacy advocates cringe at the more extreme proposals. Fortunately, dire measures may not be necessary—at least, in the short run. Many of the Net's problems can be solved through relatively straightforward measures: Businesses can be more vigilant in guarding against cybercrime, even if it increases technology costs and slows their growth online. Children can be taught computer ethics. The government can enforce stricter penalties against vandals. And pressure can be put on companies with the kind of lax security policies that encourage would-be miscreants. Here are five proposals for making the Net safer, without compromising our privacy or privileges in cyberspace:

Many of the Net's problems can be solved by relat

STAMP OUT SOFTWARE BUGS

are simply too many things that ong with today's software. And s know how to take advantage of eaknesses. "More than 75% of the nts we see are the direct result of known [software] bugs," says n V. Herman, a member of gie Mellon University's Computer ergency Response Team. Better aining for software developers and new programming techniques—such as breaking software into smaller, more manageable chunks—could solve many of the problems. And more real testing—not "beta-testing" in the marketplace—will yield programs that are less vulnerable to attack. "The monster, bloated, multimega office suite is a big part of the problem," says Eric S. Raymond, president of the Open Source Initiative that promotes programs such as the Linux operating system.

Software giant Microsoft Corp. insists, however, that customers will not trade features or functionality for better security. "Chasing software perfection, chasing the last bug, is not what customers want," says Steve Lipner, manager of Microsoft's security response team.

But security, for everyone, hinges on software quality. And quality gets further compromised by companies' mad rush to launch e-businesses. The Web is ballooning, with over three million new pages a day. Those numbers represent a huge consumer market. Serving that market requires new software, which gets cranked out too fast and is often installed incorrectly (page 160). In 30% of the customers it tested, IBM found that firewall security software used to protect Web sites was improperly installed—aggravating the bug problem and leaving more openings for hackers. "Speed and money are antithetical to security and reliability," says Peter G. Neumann, a computer scientist at SRI International.

What's more, at most colleges teaching computer science, techniques for developing secure code are not even part of the required curriculum. Says Charles Palmer, director of network security for IBM Research: "Among software engineers, [the study] is looked at as phys ed."

2 FORTIFY THE ISPs

The ability to fight off some types of denial-of-service attacks is already built into the design of the Net. Each packet of data flying around in cyberspace bears a return address. If that weren't the case, Yahoo! Inc. wouldn't know where to send the Web pages your browser requests when you visit their site. But there are ways to fake a return address, known as "spoofing."

During the recent Web site attacks, up to one billion bits of data per second were streaming at Yahoo's overburdened servers. Since much of this deluge consisted of messages from legitimate computers responding to bogus packets with forged Yahoo addresses, the site had no simple way to defend itself. But if the Internet service providers that were handling that traffic had been equipped with certain types of filters, they could have spotted the spoofed packets and sent them packing.

For such a filtering effort to work, according to Steven M. Bellovin, Internet security researcher at AT&T Labs in Florham Park, N.J., virtually all the major ISPs would have to add some filtering software to their routers—the high-power computers that serve as highway exchanges on the Internet. This will cost the ISPs, who must upgrade to faster routers. And the filters will take a toll in network speed. But once these routers were reconfigured, they would simply refuse to deliver packets that were not properly labeled.

This idea is extremely popular with Net engineers. But some ISPs have reservations. Sprint, for example, would have to put spoof filters on 6,000 routers managing customer access. That would entail a lot of support, says Mark Hansard, director of network security services at Sprint Corp. And in some cases, such as at universities, where the network configuration changes quickly, the filters may not work, says Patrick J. Cain, security expert at GTE Internetworking in Burlington, Mass.

3 MAKE THE PENALTY FIT THE CRIME

Technical fixes are only part of the solution. Making the Internet secure is also a matter of holding people responsible. "We need to make people liable for the damage they cause," says David Brumley, a Stanford University software developer who helped the Federal Bureau of Investigation track down suspects in the recent attacks.

That means tougher law enforcement. Crack down harder on the cyber attackers, and hacking will suddenly look less attractive—as experts told Clinton at the summit. Bruce Schneier, chief tech-

ightforward measures that don't infringe on privacy

"The monster, bloated, multimega office suite [software] is a big part of the problem," says Eric Raymond, a proponent of open-source programs such as the Linux operating system

nical officer at Counterpane Internet Security Inc., would go further: He suggests making it illegal to post software that was developed with the sole purpose of launching attacks. "There is no legitimate use for these tools," he insists.

Accountability means more than beefier cybercops. The Internet is poised to make the final leap from its academic roots to a full-fledged business system, which means it's time to bring in the lawyers. "We are right now on the cusp of seeing the standards for what is negligent emerge," explains James X. Dempsey, senior counsel at the Center for Democracy & Technology in Washington. He suggests that, before long, people who let their systems be commandeered may be held liable for not taking appropriate security measures.

This is not so far-fetched, experts say. If you slip on snow outside a neighbor's home, you can sue him for failing to shovel. The threat of lawsuits and other potential hits to the bottom line may persuade boards of directors and insurers to step up calls for increased security at e-commerce firms. Says Harris Miller, head of the Information Technology Association of America (ITAA): "What we have are a whole bunch of forces coming together to make companies move security higher on their list of priorities."

4 COMPANIES, COVER YOUR @#$%'S

Some solutions are merely common sense. Companies can't just install firewalls—they must monitor them, learn the peculiar signs of an attack, and policies that ensure a speedy respo Data have to be backed up, even if adds costs. Administrators have to date software regularly, read the letin boards for announcements on h and install patches. In many cases, panies can actually contract with ISPs to install filters and monitoring tems that will adjust Net traffic. Sp for one, offers such services fre charge.

5 TEACH YOUR CHILDREN WELL

Parents and schools need to teach puter ethics. Kids are being handed erful tools before they reach pub Says William C. Boni, a computer rity analyst with Pricewaterhouse ers: "We do drivers' education befor turn them loose. Why not do com education before we turn them loo the Information Highway?"

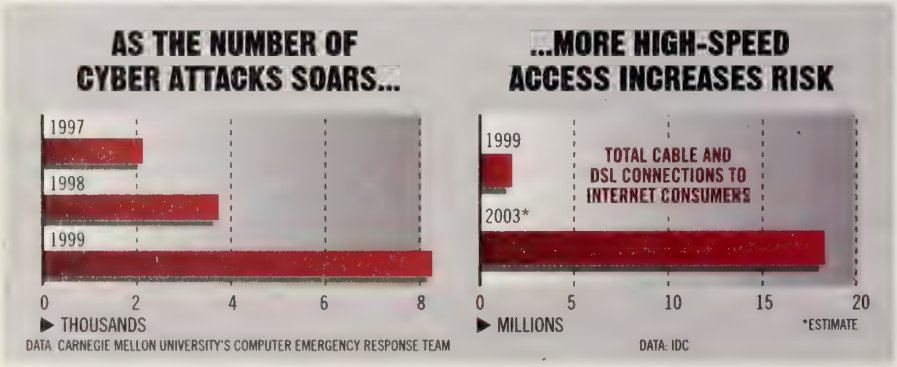
Well, so far no one has been kill the I-way. But even a small dose cial responsibility training would long way to quelling hacker misch preferably before high school.

Some programs are beginning to ble out, but funding is inadeq "Hacking is not funny, not cute, an something that should be admired," Miller of the ITAA. The group rec teamed up with the Justice Dep plans to spend up to $2 million to cate kids. The ITAA is taking its conducting focus groups and othe search to come up with a message actually stands a chance of ge through to kids.

None of these five measures impose ungainly bureaucratic laye the Internet. And in terms of pr threats, their impact simply pales the aggressive online tracking pra that companies already deploy abandon.

The solutions lie in the realms ture, ethics, and technology, all of can be molded without undue fuss telligent, timely decisions. "When lems come up, one of the strengt the Internet is that people get tog and solve them," says Williar Cheswick, a benevolent hacker-in dence at Lucent Technologies Inc. Laboratories. "In some sense, the self-repairing." In that case, let the ing begin.

By Ira Sager and Neil Gross in York and John Carey in Washi with bureau reports



COMMENTARY

By Dan Carney

THE NEW MATH OF ANTITRUST

ederal Trade Commission Chairman Robert Pitofsky stands accused of inventing itrust rules as he goes along. tics are puzzled why his com- sion approved the $81 billion con-Mobil merger in December, n voted down the much small- $29 billion marriage between Amoco and Atlantic Richfield on Feb. 2. "This merger ms to have been held to a ner standard than anyone be- it," says Ed Porter, manager esearch for the American Pe- eum Institute, a trade associa- of oil and gas companies. Per- s, critics say, Pitofsky simply seen one oil merger too many. he truth is more interesting. If FTC were simply capricious, as ics claim, companies would e little to fear—because the rts would be unlikely to back decisions on appeal. What Pitof- and his trustbusting counter- s at the Justice Dept. have ac- plished is a much more profound t. They have seized the initiative efining what constitutes competi- in a complex business world.

-OFF SCRUTINY. Now, instead of g a few broad rules of thumb to for antitrust, they're digging n into the details of proposed gers to look for anticompetitive olems. Even if average prices t expected to go up in the wake deal, for instance, the FTC will b through data to see whether a ger will raise prices for particu- groups of consumers. And they're ng to forecast whether a merged pany could raise prices excessive- the long run, even if it has no ent pricing power. FTC officials e that such close analysis will er preserve competition and lead ounder decisions about whether a should go through or not. The wback? It complicates life for businesses, which have a harder time now sussing out exactly how the FTC or the Justice Dept. might rule on any given deal.

PITOFSKY: *The FTC chief digs into details*

An example of the new approach is the FTC's tougher line on divestitures. Merging companies frequently offer to spin off some assets to allay antitrust concerns. But according to a recent study by the agency of 37 cases, such remedies failed to promote competition as intended a quarter of the time. In several cases, acquirers of divested assets were too weak to compete. That explains why the FTC now closely examines the quality of the assets offered for sale and—crucially—whether whoever buys the assets will be able to mold them into a competitive enterprise.

Arco and BP Amoco are among the first companies to run afoul of the FTC's evolving test. They say their proposed divestitures are bigger than what was demanded of Exxon and Mobil. But the FTC says it's not size that matters. It argues that even after the divestitures, the combined entity would still have a chokehold on oil production on the North Slope of Alaska and be able to raise prices for refiners on the West Coast as well as on transportation of oil to the Cushing (Okla.) trading hub.

It's not just the FTC that has zeroed in on problems in specific markets. Justice rejects Microsoft Corp.'s argument that it is competing in a marketplace as vast as the entire Internet. Instead, Justice has persuaded U.S. District Judge Thomas Penfield Jackson that the relevant market is software for desktop computers, where Microsoft clearly dominates.

The ground-level approach to merger review can be unsettling. "How do you generalize from these...cases? How will we know it will be okay to do X but not to do Y?" asks Charles E. Biggio, a former antitrust official in the Clinton administration who is critical of the FTC's role in BP Amoco.

A fair question. Pitofsky's answer is to invite companies that are considering a potentially anticompetitive action to enter into a dialogue with trustbusters. "We're not looking for ways to say no," Pitofsky said in a BUSINESS WEEK interview preceding a Feb. 17 speech on the topic. He argues that if he were overstepping his bounds, far more FTC decisions would have been challenged in court.

Pitofsky wants to be seen as a partner of business more than a cop. That may take some getting used to. But barring any post-election policy changes, merger-happy dealmakers may have little choice.

Carney covers legal affairs from Washington.

HE FTC'S VOLVING ERGER EST

WILL IT RAISE PRICES IN ANY MARKET? Even if a merger is too small to affect a product's price on average, the FTC checks whether consumers in a particular region or market could get hurt

WILL A PARTIAL DIVESTITURE CREATE COMPETITION? The FTC wants to ensure that assets divested in a merger are strong and that whoever buys them can compete with the merged outfit

MIGHT THE MERGER CREATE LONG-TERM HARM? The agency is now more willing to explore whether a merged company could raise prices in the long run, even if it lacks pricing power at present

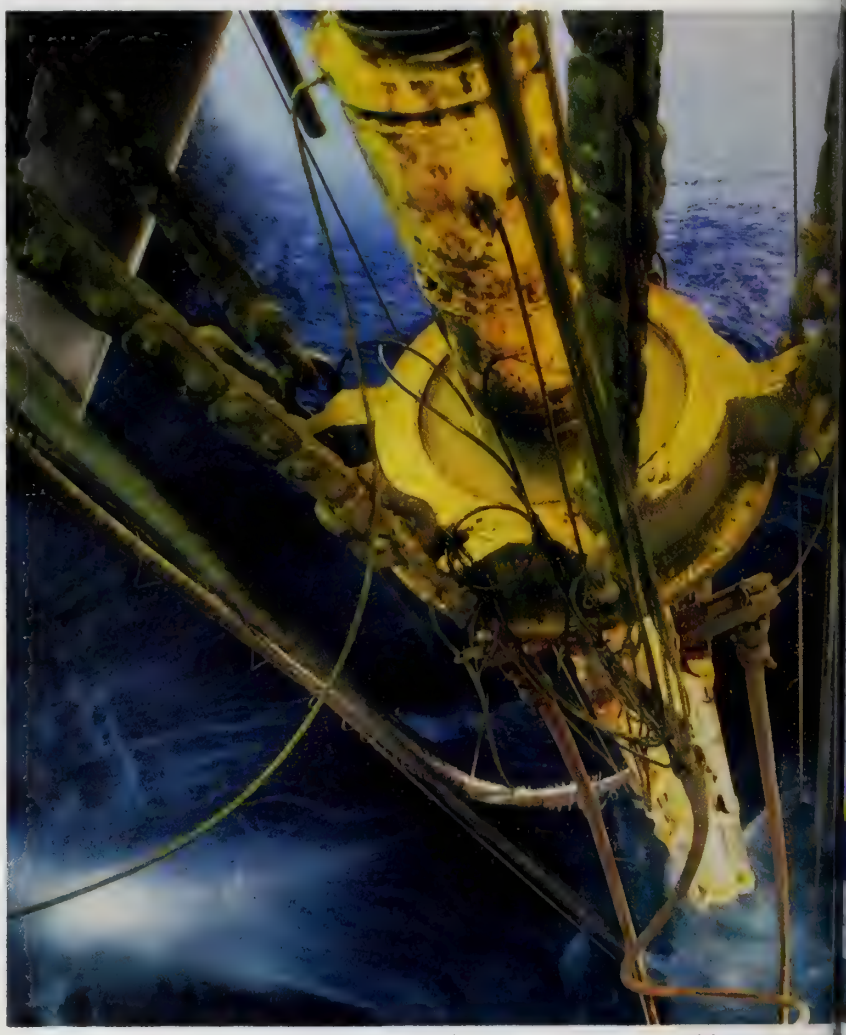
ENERGY

IT'S STILL TOO EARLY TO PANIC AT THE PUMP

Oil may have reached $30 a barrel, but few in the industry think it will stay that high for long

Oil prices are on the front burner in the U. S. for the first time in a decade. In the Northeast, domestic heating-oil prices rose 40% in a month. Gasoline prices are the highest since the Persian Gulf War, and analysts say they'll be even higher by the summer driving season if world production doesn't rise soon. With the industry benchmark—light sweet crude—exceeding $30 per barrel on the New York Mercantile Exchange for the first time since 1991, Energy Secretary Bill Richardson is embarking on visits to Saudi Arabia, Kuwait, and Mexico in hopes of persuading them to put more of their oil on the market.

You might think that the big oil producers would turn U. S. entreaties down flat while they enjoy their gusher of petrodollars. Not at all. In fact, signs are increasing that many of the major producers are alarmed by how high oil prices have gotten. The clearest signal yet came on Feb. 16, when Saudi Arabian Oil Minister Ali bin Ibrahim al-Naimi told reporters in Tokyo that "a price similar to the levels experienced during the last six months is a reasonable one." The six-month average of prices is about $4 per barrel below the current level.



FINE LINE
If drillers increase production too much, oil prices could collapse

One reason: The spike has OPEC worried that if prices stay high for too long, the big multinationals like Exxon Mobil Corp. will increase exploration and production and permanently gain market share. If $25 to $30 oil prevails for more than a few months, "all sorts of projects from West Africa to the Caspian will be set in motion that can't be turned off," says Adam E. Sieminski, oil strategist for Deutsche Bank Alex. Brown in Baltimore.

On top of that, big oil producers can't afford to pitch their customers into recession by raising prices too much. "These countries all have a stake—not only in the oil price—but in the health of the world economy and the U. S. stock market," says Daniel Yergin, chairman of consultants Cambridge Energy Research Associates. Indeed, for some producers, good relations with the U. S. are essential. Mexico, which has called for a "soft landing" in prices, ships 90% of its exports to the U. S. And the Saudi kingdom needs U. S. military protection.

The challenge for big exporter the next weeks will be to find a la that avoids the dangers of not enough to increase supplies, or tr ing a price collapse by overprod The OPEC target may now be $25, says Petroleum Finance Washington-based consulting firm

UNUSUAL DISCIPLINE. In the run OPEC's next meeting on Mar. 27 enna, expect a behind-the-scenes between hawks such as Iran, A and Libya, and Saudi Arabia, wh vors an easing. Moreover, the aren't just talking. According to Diwan, a Petroleum Finance a

ave quietly ramped up their pro-
n to half a million barrels above
ota set for them last March. Pub-
he kingdom's policymakers con-
o pledge allegiance to last March's
nent. They are wary of spoiling
recent good relations with Iran.
ey have not wanted to risk hurt-
e chances of the supporters of
ate Iranian President Ali Mo-
ed Khatami in parliamentary elec-
But after that Feb. 18 vote, the

may be more strident about the
s of producing more oil.
e analysts say that OPEC's un-
discipline could dissolve once its
ers get embroiled in allocating
roduction quotas. "You will see
ne deteriorate quite quickly," pre-
ergus MacLeod, a British oil an-
MacLeod thinks that a fall of
$10 per barrel may be in the off-
tures traders also expect a quick
n prices. The NYMEX contract for
elivery of crude oil is at $27 and
ovember contract is at $24.
customers, an OPEC easing can't
too soon. Oil inventories in the U.S. are at their lowest level in 23 years. One reason is improved efficiency: Refiners have discovered just-in-time inventory management. But another factor is that oil buyers are hoping to wait out OPEC and replenish supplies after prices fall. If OPEC outwaits them, buyers could end up paying even more for oil in a classic squeeze.

COLD COMFORT. Already, tight markets have sent heating oil prices soaring—and brought pressure on the Clinton Administration to release oil from the Strategic Petroleum Reserve (sidebar). Ruth Collins, 61, who lives in a large, Victorian-style house in Roxbury, Mass., says she's been keeping the thermostat below 60 degrees. Close by in Chelsea, Annie L. Adams, 66, wonders where she will get the money to refill her tank at $1.96 a gallon. She has already turned down the heat and scrapped spending on such items as orthopedic shoes. Says Adams: "I'm afraid of dying in bed."

For most of the U.S., the biggest bite is coming from more costly gasoline. Retail gas prices rose to an average of $1.356 a gallon by mid-February, up 48% in the past year and the highest since late 1990, according to the Energy Dept. And things won't turn around quickly even if OPEC does ease up, because it takes a while for oil to be pumped, transported, and refined into products such as gasoline.

Despite those dislocations, however, oil prices are unlikely to knock the economy off track. The world is less dependent on oil than it once was, thanks to increased energy efficiency, the growing importance of service industries, and the rising use of natural gas. In the U.S. last year, consumer prices rose just 2.7% even though oil prices more than doubled.

With so much else going right in the global economy, companies are managing to absorb much of the oil price hikes rather than passing them along. Southwest Airlines Co. says recent fare increases of $2 to $4 one-way will recoup only $10 million to $20 million of a $75 million increase in fuel prices in the first quarter. But Chief Financial Officer Gary C. Kelly says the company expects to stay "nicely profitable" in the first quarter and predicts that fuel costs will soon head back down.

Even when OPEC does get its act together, it isn't the terror it was in the 1970s. Still, a lot of customers will breathe easier when the big producers open their spigots a little wider.

By Stanley Reed in London, with Wendy Zellner in Dallas and Victoria Murphy in Boston

GAS: *Up 48% in the past year*

CALL UP THE RESERVES?

It's the Northeast and Midwest vs. the oil states. At stake: the Strategic Petroleum Reserve, a 570 million-barrel stash of oil intended to guard against a national-security emergency such as a war or major supply interruption.

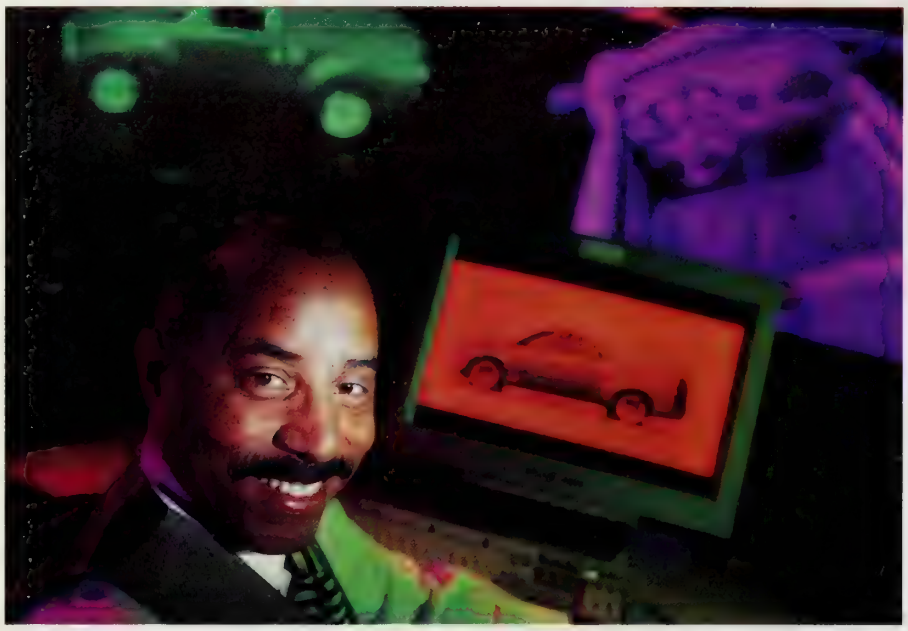
Hoping to lower heating oil prices, Senator Charles E. Schumer (D-N.Y.) is pushing a bill to let the President tap the reserve when prices jump because of market manipulation by foreign producers. On Feb. 16, Senator Charles E. Grassley (R-Iowa), who represents diesel-hungry farmers and truckers, said he also favors using the reserve.

BORROWING PLAN. Domestic-oil producers and oil-state lawmakers staunchly oppose loosening the law. "Such a decision would be disastrous," says Senate Energy Committee Chairman Frank H. Murkowski (R-Alaska).

The White House appears to favor a compromise: a swap that allows producers to borrow oil from the reserve. They would replenish the cache, with "interest" in the form of more oil, when supply conditions improve. But no decision will be made until after Energy Secretary Bill Richardson completes visits to the oil ministers of Kuwait, Saudi Arabia, and Mexico, which may take until early March.

Knocking down the price of oil won't be easy, warns Aaron Kildow, a Prudential Securities Inc. analyst. He says it would take about 1.5 million barrels a day—about three times more than what's being discussed. Keep those blankets handy.

By Laura Cohn in Washington



DESIGNER WELBURN: *Before, "thin weren't in place to get [ideas] do*

AUTOS

LOOK WHO'S FINALLY STOPPING TRAFFIC

GM has sexy car ideas–and is executing them fast

First, the job of ending the two-decade-long slump at General Motors Corp. was going to be accomplished with fewer workers and lower production costs. Then, GM's salvation was a state-of-the-art small-car plant called Project Yellowstone. After the union felled those plans last spring, the new answer became e-commerce. Now, after watching its market share drop from 44% in the early '80s to 29% today, the world's largest carmaker has another idea: Build cars people want.

That explains why, for the first time in years, GM stole the buzz in early February at the Chicago Auto Show by uncloaking such concept cars as its Buick Rendezvous, a luxury-car-based sport-utility vehicle aimed at buyers of Toyota's hot-selling Lexus RX300. It will go on sale in about 12 months. That followed similar splashes at auto shows in Los Angeles and Detroit, where GM's concepts—show cars meant to measure public response to product ideas—outshone design leader DaimlerChrysler. Says CEO-elect and President G. Richard Wagoner Jr.: "We're moving more aggressively and faster."

Of course, GM's competitors are hardly tapping the brakes. Rivals continue to hit new market segments with fresh offerings. But consumers are giving the thumbs-up to GM's concepts. For the first time in years, they ranked among the best seen at the year's big auto shows, according to a survey of 900 people done in January by Bandon (Ore.)-based CNW Marketing/Research. The Chevrolet SSR—a cross between a pickup and a roadster that GM will build—scored the top. Also scoring well: Chevr Avalanche, a Suburban jumbo SUV w pickup bed, slated to go on sale January; the sleek Buick LaC coupe; the truck-based Chevy Trav and a soon-to-be-built Hummer2, a er version of the hulking military ve Marvels CNW Vice-President Art S la: "Considering where they've from, it's a surprise." Only the f Pontiac Aztek sport-utility, on sale summer, scored poorly.

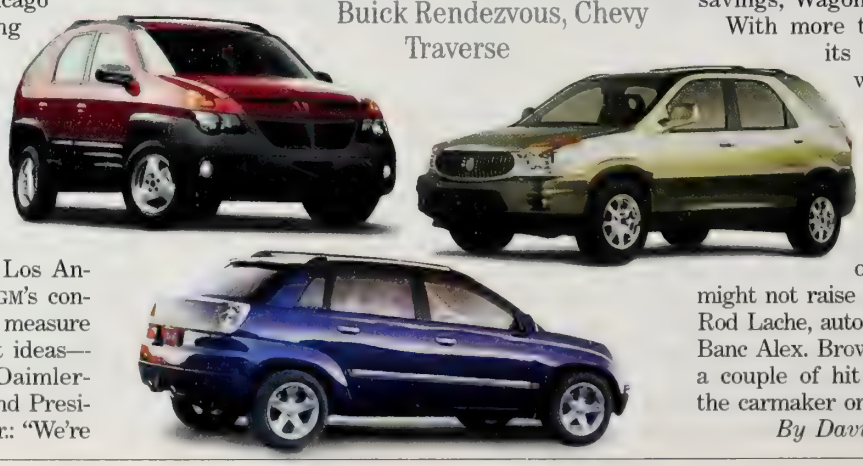
SHORTER CYCLES. It all marks qu change from the early 1990s, whe shelved many new-look proposal cause cash was short. Now the auto giant is even opening a new c studio in North Hollywood, Calif. has hired more than 150 addition gineers, designers, and sculptors. GM designers feel they're beginni win over the company's risk-avers gineers and bean-counters. Say Welburn, director of GM's Corp Brand Center and the lead design the SSR: "There were times when ideas came through, but things w in place to get them done."

GM is also speeding up when it to turning concept cars into actual ucts in showrooms just 18 to 24 m later. As recently as 1997, that pr took 43 months, Wagoner says. W the Aztek. First unveiled as a sho in January, 1999, the minivan-sport-utility goes into production in and will arrive in showrooms by Six months later, Aztek will be joi the factory by the Rendezvous, took 28 months to develop. Now G 19 cars being developed under month schedule and two or three 18-month plan. Greater effici and the shorter cycle have saved GM around $1 billion i savings, Wagoner says.

With more than 75 vehic its lineup, howev will take more a few hot m to stop GM's ket slide. " are so many ucts that n be replaced one or two might not raise market share Rod Lache, auto analyst at De Banc Alex. Brown. But scorin a couple of hit vehicles cou the carmaker on the right ro

By David Welch in L

CONSUMER-DRIVEN CONCEPTS
Clockwise from left: Pontiac Aztek sport-ute, Buick Rendezvous, Chevy Traverse



COMMENTARY

By Richard S. Dunham

AS THE REFORM PARTY IMPLODES, WHO WINS?

ECTION
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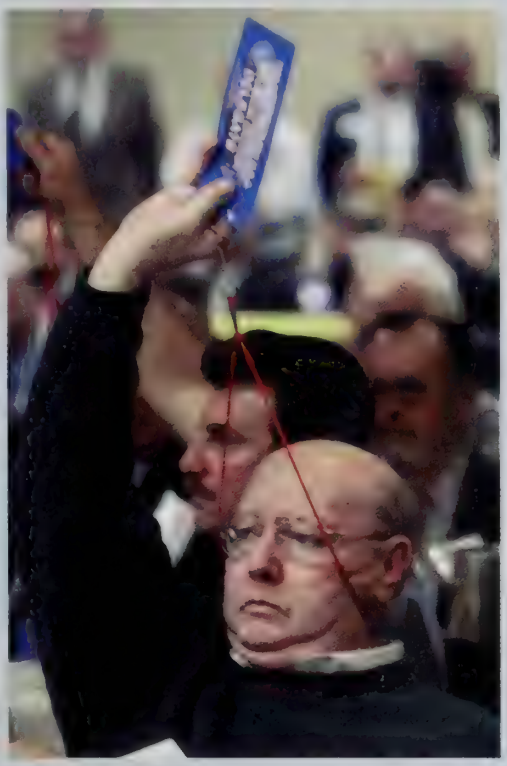
ORM PARTY

The surest proof of the decline of the Reform Party wasn't its Feb. 12 national committee slugfest in hville. Nor was it Minnesota ernor Jesse Ventura's bitter arture a day earlier. Instead, it be found in the attitudes of or- ıry folk like Paul Biery, a 65- r-old Vietnam vet from Colum- S.C. "I voted for [Ross] Perot e. I loved his craziness," the red U.S. Army officer says. now, Biery has a new populist mpion—Republican John Mc- ı. "Reform Party people will nitely vote for McCain," pre- s Biery, as he catches a Mc- ı event at Columbia's Beth lom synagogue.

erot's Reform Party organiza- may be dying, but the splin- movement spawned by the ec- ric Texas billionaire is very h alive. And the millions of ner Perot followers like Biery d play a crucial role in select- the next President. Who ıds to profit most? The betting: Cain gets the best odds at this e of the campaign. But if he to win the Republican nomina- , then many may go to Vice- sident Al Gore.

AIN MANIA. McCain, a war hero former prisoner of war, has won ı praise from the Dallas maverick he past. In New Hampshire, Mc- ı trounced George W. Bush by e than 2-to-1 among voters who they'd consider backing a Re- ı Party candidate in November. us groups conducted by GOP poll- Frank I. Luntz, who worked fly for Perot in 1992, show simi- eanings in other primary states. ey're voting for McCain en se," says Luntz. "It's what's mak- McCain so viable nationwide." n newly installed Reform Party ı Pat Choate (who dismisses the ona senator as a "counterfeit re- ıer") acknowledges that McCain's sage of campaign-finance reform ed with patriotism "resonates ı the public."

or erstwhile Perot backers, Mc- ı's attack on big money, big cor- ations, and tax cuts for the wealthy—and his fusion of pro-military patriotism and social libertarianism—are compelling. McCain "sounds more like a Reform Party candidate than anyone else running," says Victor Moffitt, chairman of the Rhode Island Reform Party. So if McCain rides this wave of support from independents to victory in the GOP primaries, he'll probably command their votes in the general election against likely Democratic nominee Gore as well. According to a Feb. 9-10 Fox News/Opinion Dynamics Poll, McCain would trounce Gore among independent voters, 55% to 28%.



REFORM DELEGATE: *A taste for mavericks*

But what if the recent concerted effort of Republican power brokers to stop McCain's candidacy is successful? With McCain out of the race, these reformers—most of whom had once called the Republican Party home—are more likely to defect to the Gore camp, just as many voted for Bill Clinton over Bob Dole in 1996. The reason: As "radical centrists," a description Perot coined for his party members, they just haven't been happy with the GOP's sharp shift to the right on social issues or the party's negativism and inability to work out compromises.

Bush, who recently lurched to the right on such issues as abortion, could face particular problems with independent-minded younger voters. They defy party labels, resent partisan pettiness, and endorse quirky outsiders like Ventura. Says independent Michigan pollster Ed Sarpolus: "If Bush resorts to the traditional, old-style Republican attack politics, the people [who voted for Perot in 1992] will rally to Gore." Or, just as bad, they will sit out the election. Since many had once been Republicans, that would likely hurt Bush far more than Gore.

Moreover, reformers who don't like Gore may hurt Bush anyway by lining up behind the eventual Reform Party nominee. Nationalist rabble-rouser Pat Buchanan, for example, would battle Bush for anti-abortion true believers and right-wing populists in the South and industrial Midwest. "Buchanan would draw 2-to-1 from the Republicans," predicts American University political scientist James A. Thurber. Even a small Buchanan vote in states such as Michigan, Ohio, Georgia, or North Carolina could tip the balance toward Gore.

Meanwhile, back at the Reform ranch, the once-and-future party leadership is trying to restore peace to a bickering bunch of fractured factions. These internal machinations are of little consequence to the 2000 Presidential race. But Paul Biery and the huge bloc of former Perot supporters still could wield the kind of clout that the leaders of the dying party can only wish they still had.

THE INDEPENDENT VOTE, IF IT'S BUSH VS. GORE

	BUSH	GORE
OCTOBER, 1999	48.2%	32.1%
FEBRUARY, 2000	39.9%	40.9%

DATA: ZOGBY INTERNATIONAL

With Lee Walczak in Columbia, S.C.

Your business of today may not reflect your business of tomorrow. That's why Wausau dedicates tea
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What can we do to help y

WARE

IONEER CE MORE

Andreessen jumps into eb outsourcing market

en Marc Andreessen burst on he scene six years ago, his ar- ival in Silicon Valley from Illi- ralded the the Internet Age. He rely 22, a hamburger-chomping, ced boy—but the Web browser colleagues built at Netscape nications Corp. shook the world. etscape came and went, though, up

"We're a proud partner of rosoft this time. Isn't that t?" — MARC ANDREESSEN

enemy Microsoft Corp. and ac- by America Online Inc. And An- n dropped out of sight.

the former wunderkind is back. grown up, too. The baby fat has off his cheeks. But Andreessen up to the same old tricks. With v company, Loudcloud Inc., in ale, Calif., he's helping to pio- hat many see as the next big tech: delivering computing to ies as reliably and simply as they tricity off the power grid.

lcloud assembles the plumbing that's needed to run a busy Web site—everything from server computers to database software. Then it sells the package as a service delivered over the Web to companies for a monthly fee. "Nobody in their right mind would call this sexy, but it's critically important," says Forrester Research Inc. analyst Ted Schadler. "They're like the people who built the the roads and the power grid and the banking system."

Andreessen learned from Netscape's mistakes. Instead of selling companies expensive packages and then racing off to the next deal, as Netscape did, Loudcloud gets rewarded when satisfied customers buy new services. And, since it guarantees its service will work 100% of the time, Loudcloud pays refunds if Web sites go dark. "If a customer does well, we succeed. If we have outages, we have immediate pain," says Andreessen.

For now, Loudcloud is targeting new dot-coms. It can assemble a startup's computing system from scratch and add computing capacity on the spot. That cuts down on expensive technicians. Monthly fees start at tens of thousands of dollars, which analysts say is cheaper than when customers handle things themselves. Loudcloud's first seven customers include DreamLot Inc., an auto auctioneer whose CEO, Michael Yang, credits the company with hastening his April launch by several months. "They're operating at light speed," he says.

Andreessen and his buddies had best be quick. They've got plenty of competition in their corner of an emerging Web-hosting market. Researcher Dataquest Inc. expects that market to be worth $22 billion by 2003, up from $2.7 billion today. Startups such as Pandesic LLC and USinternetworking Inc. provide similar services—though they don't promise the same 100% service guarantees. And major players like AT&T overlap with what Loudcloud does.

There's one gorilla that Loudcloud won't face, at least for now: Microsoft. It supplies the upstart with software. "We're a proud partner of Microsoft this time. Isn't that great?" quips Andreessen. It's certainly better than being the software giant's lunch.

By Steve Hamm in New York

O'NEAL: DEFT POLITICAL SKILLS

WALL STREET

MERRILL'S TEFLON TIGER

Can Stanley O'Neal reenergize the brokers?

E. Stanley O'Neal caught the public's attention on Feb. 14 when he was named to lead Merrill Lynch & Co.'s brokerage operation, the nation's biggest. But O'Neal, 48, one of the highest-ranking African Americans on Wall Street, had been marked by Merrill insiders as an up-and-comer years earlier. The executive, who joined Merrill from General Motors Corp. in 1986, is considered a skilled manager and excellent communicator. He even emerged unscathed in 1998 when he was chief financial officer during a bond bloodbath that led to Merrill's first quarterly loss in nine years. "At that point, you knew he was golden within the firm," says a Wall Street analyst.

Now, the rest of the world will find out exactly how golden O'Neal is. The latest promotion appears to make O'Neal the leading candidate to succeed Chairman and Chief Executive David H. Komansky, 60, who's expected to step down in five years. Whether O'Neal ascends to the throne of the nation's largest brokerage firm will likely hinge on one thing: his ability to shepherd Merrill's 14,200 U.S. brokers through the most tumultuous time ever in the retail brokerage industry.

O'Neal's daunting task is to continue to remake a brokerage force that grew

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up—and grew prosperous—on schmoozing with clients, recommending stocks, and earning rich commissions on every trade. The boom in online trading makes much of that irrelevant. "O'Neal's appointment is indicative of a sea change at Merrill and the brokerage industry in general. Because of the Internet, it's becoming much less of an old-boy's network—they've really got to focus on meeting stated financial goals," says Henry McVey, securities industry analyst at Morgan Stanley Dean Witter.

For Merrill, that means stemming costs in the cushy brokerage business—in order to stay profitable with lower commissions—while offering clients more comprehensive financial planning and other services. In an interview, O'Neal said he plans little change in the strategy of his predecessor, John L. (Launny) Steffens: "Launny has put in place a magnificent business. He's had a clear vision that's proved to be right."

PEACE OFFERING. Where O'Neal may be able to improve on Steffens' record is in patching up brokers' morale. O'Neal's outsider status—he has never worked as a broker—and people skills may help smooth the way as he pushes through needed change. "The biggest obstacle he faces is that brokers aren't happy with the status quo," says Guy Moszkowski, securities industry analyst at Salomon Smith Barney. "The way Merrill introduced a lot of their online strategy was a blow to brokers," adds Mark Elzweig, a brokerage recruiter. In a step that's bound to please brokers, O'Neal says he plans to add bodies to the brokerage ranks: "We need more people—the best we can find."

O'Neal's success reenergizing brokers may well stem from how well he does the other half of his job: ensuring that Merrill's phenomenal growth online isn't primarily coming out of their hides. Thanks largely to the newly introduced Unlimited Advantage account, which charges a fee based on assets rather than generating commissions from trades, Merrill's online brokerage revenues are booming. In the last three months of 1999, assets in its Unlimited Advantage accounts rose from $40 billion to $63 billion. But 86% of the assets are from existing clients. "O'Neal's got to make online work without cannibalizing [traditional] revenue," says Moszkowski. If O'Neal can steer Merrill's brokerage business through these tumultuous times, he may prove himself golden once again.

By Marcia Vickers in New York

MARKETING

NEW MONSTERS ON THE BLOCK

Digimon aims to steal young hearts away from Pokémon

Could it be? Wes Myers doesn't like to play with Pokémon anymore—or at least not half as much as he did a few months ago. Sure, the fourth-grader from Taunton, Mass., says he still likes to trade the cards. But at his school, Pokémon toys are just not as hot as they once were. "We were more into it at the beginning of school," says Wes. "It isn't as new." Now, many of his friends have begun to watch

something called *Digimon* on television.

And so a new toy craze starts. At least that's what the Digimon toy creators—Bandai America Inc., the company that brought your kids Mighty Morphin' Power Rangers—are hoping. Like Pokémon, Digimon is an entire society of characters, all with their own special powers and life stories, available in trading cards, stuffed animals, and action figures. Like Pokémon's menagerie before them, Digimon characters came from Japan, where they were already superstars among the younger set. Kids can collect them, trade them, and tell stories about them. They can watch them on t sion. In truth, there's not much diffe between the two stories, except tha Digimon characters cavort in a "d world."

So the question is whether kids respond to a near-identical marketin proach for a toy collection that is so ilar to one they already own. Digi creators say the answer is yes. B America Chief Operating Officer Goldner says that half of the Dig toys in retailers' hands are selling week. Now, says Goldner, the challen "producing enough product." Ret agree. "Digimon is doing very well," John Eyler, chief executive of Toy Us Inc. Does that spell the demi Pokémon? Eyler is certainly not cou them out: "Will Pokémon be as s this year? That's not clear. But if it's close to last year, that would be O.

To regain the attention of kids su Wes, Pokémon toymaker H Inc. and Nintendo of America the licensor of all things Pok outside Asia, are introducing a ing array of new products. The mon marketing team also plans t lease a second movie this summer there will be more television shows 100 new characters.

Gail D. Tilden, Nintendo of Ame vice-preside product ac tion and d opment, pr that all that mon stuff could

MAKE

Even thoug Digimon so isn't r different Pokémon, "Dig is doing very at Toys '

erate an additional $1.5 billion i U. S. in 2000, plus $1.2 billion in E where it is just being launched. Th addition to the $1.2 billion it made U. S. last year. "The property is so says Tilden. "It's really unparallele

Digimon is also increasing the of its 206 characters by another 20 fall to be featured in 52 new TV epi Its first video game is due ou spring. So beware, unsuspecting pa The latest toy war has begun, an might as well be Poland.

By Nanette E in New

world is talking about a more powerful way to compete.

describing a competitive advantage that shatters traditional computing constraints. It's called Digital Independence.™ The full-throttle ability to deliver any application to any device with any connection. Wireless to Web. All powered by application server software and services from Citrix. The digital economy engine for top ASPs and over 80 percent of the Fortune 500.™ See why they're talking at **www.citrix.com/computes** or **888.564.7631**.

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EDITED BY PAT WECHSLER

MICROSOFT CHARGES THE HILL

WITH SETTLEMENT TALKS apparently going nowhere, Microsoft has redoubled its efforts to argue its case on Capitol Hill. Two Microsoft lobbyists—both former staffers to key congressmen—have penned a list of "talking points" to persuade members to prevent the breakup of the company. The document repeatedly uses three "R" words: radical, reckless, and regulation. It cites a poll the company commissioned that 63% of the public opposes any split. One twist: no denials about being a monopoly, just tough talk about the negative consequences of breaking Microsoft into multiple parts. This is not its first foray on the Hill. Microsoft's earlier efforts to push for budget cuts at the Justice Dept. led Congress to up the budget 12%.

THOMSON IS DUMPING THE INK

BETTING THERE'S MORE LIFE in the Net than in print, Thomson will sell all 130 of its newspapers across North America except for *The Globe and Mail*, its Toronto flagship. A powerhouse in legal, scientific, and educational data, Thomson wants to focus on globally marketable electronic products and services, not local papers. Even now, with 55 dailies, only 15% of its $6 billion in annual sales is accounted for by newspapers. But the Thomson family, owners of 73%, want to hang on to *The Globe and Mail* because "there's a psychological value" in running it, says David Radler, president of rival chain Hollinger International.

A BIG OLYMPICS SPONSOR STAYS PUT

A YEAR AGO, THE SCANDAL-plagued International Olympic Committee had no more caustic critic than David D'Alessandro, president of John Hancock Financial Services. While other corporate honchos stayed quiet, D'Alessandro challenged the Olympics governing body to change or lose the insurer's sponsorship dollars. Even so, on Feb. 15, Hancock rejoined. In what amounts to an endorsement of IOC President Juan Antonio Samaranch's reform efforts, the Boston insurer signed a four-year sponsorship deal valued at more than $50 million. It's the latest indication that "the scandal largely has passed," says Sean Brenner, managing editor of the *IEG Sponsorship Report*. And as D'Alessandro now says, a critic on the inside has more power to effect changes.

CLOSING BELL

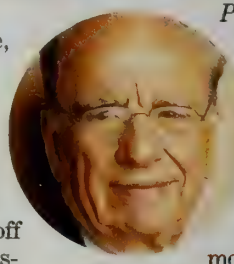
THREADBARE

With retail sales growth dimming and interest-rate jitters escalating, preppy retailer Abercrombie & Fitch looks majorly uncool. After closing at 15¼ on Feb. 16, the stock is off nearly 70% from its high in April. Net income has been hitting analysts' targets, but sales growth is falling short. Many on Wall Street have begun to downgrade the stock, as they have for other major retailers. The big worry: that Federal Reserve-driven interest-rate hikes will curb consumer spending.

HEADLINER: RUPERT MURDOCH

SPINNING OUT OF ORBIT

When Rupert Murdoch inherited News Corp. in the 1950s, it published one newspaper in Australia. Now it's a global print, TV, satellite, and film giant. And after years of Murdoch's complaints that his creation is undervalued, he's planning to spin off News's satellite assets, including its 40% stake in British Sky Broadcasting, into a separate public company. Two years ago, he sold a stake in Fox Entertainment Group and started trading it separately. So what's left at the core of News Corp. stock? Majority ownership of Fox and the satellite unit—and ownership of a slower growing print business including p pers in Britain and Australia, the *New York Post*, book publish HarperCollins, a a magazine insert unit. Ne Corp. stock h jumped 123% since October. No doubt Mur doch is hoping f more, given EchoS stock's eightfold increase the past year. Indeed, he may now regret aborting partnership with EchoSt in 1997. But if satellites don't do it, there's not m left to spin off to keep th stock price moving up at the same rate.



By Richard Siklos in New York

A MERGER THAT PAYS THE E-BILLS?

FEWER THAN 5% OF U.S. households pay bills online. The glitch? Too few customers to attract billers and vice versa. Now, two cyberbilling leaders are combining in a $1 billion merger to try to break the logjam. On Feb. 16, No. 1 CheckFree Holdings announced it will pay in stock for TransPoint, a joint venture of Microsoft and First Data. With the combo, more than 100 billers will be available. CheckFree CEO Pete Knight predicts that by 2003, 30% of U.S. households will be paying bills online.

U.S. FACTORIES ARE RUNNING HOT

INTEREST RATES, WATCH OUT. On Feb. 15, the Federal Reserve reported that industrial production rose in January by 1.0%, the biggest gain in 18 months. The lates crease, led by higher o of autos, industrial ma ery, and semiconductors passed expectations of a of 0.6%. Says Ian Shep son, chief U.S. econom High Frequency Econ in Valhalla, N.Y.: "De the East Coast snows post-Y2K inventory rund production picked up s ly." Anyone looking fo economy to cool dowr have to wait a little lon

...ET CETERA

- DoubleClick confirms being investigated by Federal Trade Commiss
- Campbell Soup cut s ing and still manages to sales higher.
- Despite a strike by neers, Boeing aims to r delivering planes by Fe
- Intel unveiled a sup prototype 1.5-GHz Pentiu expected to ship next y

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ED BY PAULA DWYER

S AL GORE HE NEW COMEBACK KID?

our months can be a lifetime in politics. Just ask Al Gore. Last fall, the Vice-President was facing both a cash crunch and a vigorous primary challenge from insurgent Bill ley. And he lagged far behind Republican front-runner ge W. Bush. But as the winter chill prepares to give way ring, Gore seems to have experienced a rapid political re- that few pundits thought possible.

ving beaten Bradley in Iowa and New Hampshire, Gore ised to dispatch his rival in the 15-state down on Mar. 7. And instead of being and politically wounded, Gore is stronger ever. For the first time in Campaign 2000, ional survey shows him moving ahead of . In a Zogby America poll conducted on 4-6, the Veep edges out George W. by to 43%, after trailing by 22 percentage s as recently as mid-December.

hat changed? Gore's makeover is both tic and substantive. Long derided as ro- and cautious, he is now more relaxed spontaneous in town-hall meetings with cided voters. And after struggling to ar- te a compelling campaign theme (remem- pragmatic idealism"?), Gore seems to have n one that resonates. He's running as a py fighter for working families who's also afest bet to maintain the nation's record- ering prosperity. "The Bradley challenge een the best thing that could have happened to Gore," American University political scientist James A. Thurber. cent polls reflect the fact that Gore has been forced to ont his shortcomings and hone his message. Gore, once ed by moderates and independents, has surged ahead of in both categories, according to the Zogby survey, h he still lags behind Arizona Senator John McCain g these groups. The Veep also has made headway with nion rank-and-file, who were slow to embrace his candidacy despite an early AFL-CIO endorsement. Labor activists visited some 5,000 union households in New Hampshire and leafletted worksites for eight weeks. The result? Labor families provided Gore's narrow margin of victory. Union voters now favor him by a double-digit margin nationwide.

PUMPED: *The Bradley challenge may have helped*

While the Gore campaign still faces cash-flow problems because of profligate spending in '99, there's room for a trace of optimism now. "We're a poor campaign with a rich message," says campaign manager Donna Brazile. On the Republican side, Bush has been unexpectedly forced to spend more than two-thirds of his $70 million war chest in the face of a surprisingly strong challenge from McCain. And Gore can ratchet down his spending if the Bradley threat diminishes further.

STILL CAUTIOUS. What's more, President Clinton and the Democratic National Committee are cooking up a soft-money fund-raising fest to raise millions to finance issue ads on behalf of the party's nominee, similar to the air war that buried Bob Dole in '96. Meanwhile, Gore allies in organized labor and the environmental movement are fielding their own efforts to plug the Vice-President and bash the Republicans (page 154).

Despite Gore's reversal of fortune, there's reason for caution at his headquarters in Nashville. The Veep's close ties to Clinton continue to be more burden than benefit. And he's still trailing both Republicans in suburbia and in the Midwest battleground, where the election is likely to be determined.

Besides, there's plenty of time for him to stumble again. "Nine months is an eternity in politics," notes National Republican Congressional Committee Chairman Thomas M. Davis III (R-Va.). Al Gore is hoping he has already lived through his eternity this election season.

By Richard S. Dunham in Nashville, with Aaron Bernstein in New Orleans

CAPITAL WRAPUP

TEAMSTER

n an unprecedented step, the Team- s union has inserted itself into an tion industry debate over which ier should be awarded a new U.S.- na route. The union is urging the te House to give the slot to Unit- Parcel Service, which employs 000 Teamsters. Some industry in- rs say giving the slot to a passen- airline, such as American Airlines Delta Air Lines, would better serve domestic economy and U.S.-China tions. It's shaping up to be the biggest route battle in a decade, but so far Atlanta-based UPS has the edge. In addition to help from Big Labor, two ex-Transportation Dept. officials are helping make the company's case: Patrick V. Murphy, who set competition policy, and Steven R. Okun, former special counsel.

OPTIONS AND OVERTIME

► The Labor Dept. continues to have trouble with the New Economy. A year ago, the agency told a Boston company that gains from stock options should be added to workers' hourly wages when calculating overtime pay. Because this would increase labor costs for companies that award stock options to hourly employees, Silicon Valley didn't like the idea and appealed to Congress. Now Representative Randy Cunningham (R-Calif.) is collecting signatures on a bill—the Stock Options Preservation Act—that would specifically omit options in overtime calculations. Cunningham calls the Labor decision "hostile" to workers. Now the agency is backpedaling, saying its advice does not apply to all companies.

HOMETOWN ADVANTAGE: *Hong Kong's Richard Li (left) is trying to trump Singapore Telecommunic*

HONG KONG

THE DEALMAKERS

The Li family stakes a bold claim on Asia's New Economy

Internet tycoon Richard Li spared no expense ringing in the millennium. The 33-year-old founder of Pacific Century CyberWorks Ltd. flew American pop diva Whitney Houston to Hong Kong to sing at his all-night New Year's Eve party for thousands of revelers. Since then, the young mogul has been making a show of his wealth and power with deal after deal. Now, he is preparing his most audacious move yet—an attempt to trump Singapore Telecommunications Ltd. in a bid for Cable & Wireless HKT, the local phone giant with a $37 billion market capitalization.

The young Li's financial fireworks aren't the only ones in Hong Kong these days. His father, billionaire Li Ka-shing, is pulling off some pyrotechnics, too. The elder Li's companies control the world's largest port operations, prime real estate in Hong Kong, a leading Israeli cellular operator, and lucrative retail chains. Now, Li, at age 71, is becoming a Net mogul, too. He's just parlayed a 1994 investment in Europe into a $21 billion windfall, earned when British cellular operator Vodafone AirTouch PLC won its bid for Germany's Mannesmann. Li Ka-shing is also for Net alliances and launching a new nese-language Internet portal. He billions more to invest.

MAGIC TOUCH. The Lis, long the r powerful business family in Hong K are moving to stake a solid claim to New Economy of Asia. A successful by Richard for HKT could further their goals. HKT's broadband netwo the biggest in Asia—would pro steady revenue for CyberWorks boost its plan to launch a high-s Internet service regionwide. Li Ka-s also operates Hong Kong's biggest lular operator and a fixed-line netw So the father might be well-positi to buy some HKT assets if son Ric decides to keep HKT's Internet busi and sell off the rest. Whether they

or local phone giant Cable & Wireless HKT, perhaps with help from his father, Li Ka-shing

ely or together, the pair are join- e likes of America Online Inc.'s n M. Case and Softbank Corp.'s shi Son as players in an industry mbines wireless telephones with eed Internet connections.

astounding thing is that Richard's Works lacks both operating rev- and profits: Its rocketing stock s based on its stakes in a variety net plays, and investors' belief in magic. Thus CyberWorks' market most $30 billion—is bigger than Amazon.com Inc. A successful uld mean that New Economy nies will soon tear through the le corporations of Asia, paying ir conquests with stock. "This is beginning," says Pete Hitchens, for Salomon Smith Barney, who any more Net players taking on stablished blue chips.

e's a political dynamic, too. If manage to oust the Singapore- m contention, it will highlight vantage of being a hometown in a city long ruled by the guid- d of *guanxi*, or connections. Li g has powerful ties with Bei- d is close to Hong Kong Chief ive C.H. Tung. Rumors are cir- that Richard traveled to Beijing Feb. 13 to consult with authorities. "Such ties have helped ensure the family's preeminence," says Albert Cheng, Hong Kong's most outspoken radio host. Neither Richard nor his father would be interviewed for this story.

The new Internet world, though, is a much bigger playing field than the familiar confines of Hong Kong. CyberWorks' stock, which Richard would use to secure a HKT purchase, is flying high largely because foreign investors have so few choices to play the Asian Net. Richard wants to move quickly to trade paper for assets, before other players get into the game. "When you have a bubble stock on your hands, it's rational to buy something," says David Webb, an independent analyst who runs webbsite.com. "I haven't seen such an audacious bid in years."

Cable & Wireless PLC, whose 54% of HKT is for sale, may end up concluding the same thing. Although Richard has raised $1 billion for the purchase, he'll need far more cash to persuade the British to sell, since they're unlikely to accept only inflated stock.

But if HKT eludes him, expect other big deals from Richard. The No.2 son clearly wants to build something. When he was just 24, Richard launched Star TV, an Asiawide regional broadcaster, with help from Dad. In 1993, he sold the money loser to Rupert Murdoch under what some analysts say was fatherly pressure. Richard's subsequent ventures were not especially brilliant—until Internet frenzy hit. With incredible speed, the slight, intense—some say arrogant—Richard has moved to corner his piece of cyberworld, and grab a second chance at building an empire.

INTERNET CATALYST. Around for less than a year, CyberWorks has been a market phenomenon. The stock took off in December as Richard's dealmaking caught investors' attention (chart, page 52). Even Richard's critics credit him with the rapid rise of the Internet in Hong Kong. His controversial deal with the government to build a $1.6 billion high-tech center without competitive bidding triggered a storm of protest. But the project, dubbed Cyber-Port, also sparked a torrent of dot-com startups in Hong Kong at a time when the city was struggling through its worst recession ever. The billions in venture capital that have flooded in since have given Hong Kong a chance to reinvent its economy.

Richard has given himself a makeover, too. Unlike his father, whose dark suits and low-key demeanor mark him

as a traditional Chinese businessman, the young Li has adopted the informality of Silicon Valley. He now carries a backpack and wears sweaters to public appearances.

SHREWD INVESTOR. The deregulation of both Hong Kong's and Singapore's telecom sector gave Richard room to pounce on HKT. Cable & Wireless announced plans to sell its stake to SingTel, the state-owned telecom run by a son of former Prime Minister Lee Kuan Yew, in January. The markets saw the deal as a desperate embrace by two dinosaurs. Their share prices dropped, paving the way for Richard.

Should Hong Kong's Lis prevail over Singapore's Lees, the victory will be one forged from Hong Kong's world of connections and cartels. Li Ka-shing is a key player in the cozy group of property companies that grew fat during Hong Kong's long asset boom. His Hutchison Whampoa controls half of the local duopoly in supermarkets and drug stores, which nestle comfortably inside buildings owned by another Li company, Cheung Kong.

Li, dubbed "Superman" by the local press, probably has never made so much money so fast as in the last six months. In 1994, Li made a shrewd investment in Orange, a promising cellular operator in Britain. Last fall, he sold Orange to Mannesmann for a $13.6 billion profit. Part of Li's payment was a large chunk of stock in the German company. Now, with Vodafone buying Mannesmann, Li has also ended up with Vodafone shares. The paper profit on those shares is an additional $6.4 billion.

So far, Li hasn't shown a coherent international telecom-Internet strategy. But plenty of global players see him as a ticket to entering China's evolving high-tech market. He has teamed up with Compaq Computer Corp. to set up an e-government site in Hong Kong. Li has also linked with Priceline.com for an Asian version of the popular U.S. site.

Richard is gathering far-flung allies, too. He formed a joint venture with U.S. Internet giant CMGI Inc. to bring AltaVista.com to Asia. And he did a $1 billion stock swap with Japanese cyber powerhouse Hikari Tsushin Inc. to cement alliances between the budding empires. All told, he is sitting on $1.3 billion in paper profits from investments in some 30 Net companies, ranging from portal SINA.com to U.S. broadband service provider SoftNet Systems.

Besides putting millions into startups, Richard is also building bricks-and-mortar projects, from Cyber-Port to production studios to create programming for his TV-based Asiawide broadband service, Network Of the World (NOW). The strategy is unconventional, concedes Richard's lieutenant and group Managing Director Alex Arena. "What we are doing is building a complete jigsaw," he says. NOW intends to deliver interactive Net access by satellite and cable to television sets in hundreds of millions of households—in Asia, then around the world.

But broadband and interactive have yet to be a success anywhere. a handful of cable operators in the r are capable of handling two-way tr Until they upgrade, the service wi cumbersome. That's one reason Li HKT, which has an advanced networ pable of handling NOW from day HKT's core long-distance business, r while, faces dwindling profits. "It elephant," says D Tinker, a regional com analyst at Deu Bank Securities.

While many in Kong would welco white knight to the Singaporean bay, there's worry the Lis play too role in the local e my. "Shipping, r and telecom are al trolled by the Li ly," says Sin Chun a legislator repre ing the inform technology ind "There should b antitrust law." Chief Executive c es any such thing

CIRCLING THE WA

Indeed, those would like Sing take over HKT a the local business munity of circlin wagons against terloper. Clearly business elite of Kong and the darins in Beijing keen on a govern controlled co from archrival S pore moving in. a Beijing role in ing the Singapore bay, the Chinese ernment has silent. But its China Telecom unit 10% of HKT, and everyone from i ment bankers to political analys lieves Beijing prefers a Li bid. classic deal from the Li dynasty: bit combining big visions and de neuvers in the corridors of pow the New Economy sweeps th Asia, to the swiftest of the old f will go the race.

By Mark L. Clifford and Bruc horn, with Frederik Balfour, in Kong, and bureau reports

A Family Affair

The Li dynasty's foray into cyberspace

THE FATHER

Li Ka-shing, 71

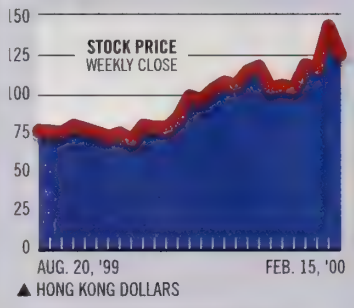
Main Company: Hutchison Whampoa. Dominates Hong Kong's utilities, port facilities, retailing, and real estate. Starting with a cell-phone venture with Motorola in Hong Kong, expands into high tech. In 1994, the company establishes Britain's Orange cellular network, sells it to Mannesmann in 1999, then ends up with 5% of the new Vodafone-Mannesmann.

THE SON

Richard Li, 33

Main Company: Pacific Century CyberWorks (PCCW). Early ventures include Asian broadcaster Star TV (sold for $950 million to Rupert Murdoch in 1993) and Pacific Century Group, which is redeveloping a prime piece of Tokyo real estate. Formed PCCW in May, 1999, to develop satellite broadband service, invest in dot-coms, and develop Hong Kong's Cyber-Port.

HUTCHISON TAKES OFF



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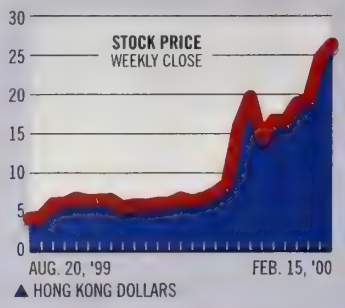
CYBERWORKS' CLIMB



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SOUTH KOREA

WILL RENAULT GO FOR BROKE IN ASIA?

It may grab Samsung Motors, but it's a risky move

It's tempting. France's Renault has the inside track to take over South Korea's ailing Samsung Motors. For the expansion-minded Renault, a deal offers access to Korea's closed passenger car market, the second-largest in Asia after Japan. As an added plus, Samsung relies heavily on technology from Japan's Nissan Motor, where Renault is now running the show. And while General Motors and Ford face opposition to their competing bids to enter Korea by taking control of Daewoo Motor, the welcome mat is out for Renault. "A takeover by Renault appears to be the only way out," says Son Cheul Gyu, a Samsung deputy general manager.

The risk is that the golden opportunity turns into a black hole. Renault is already locked into a huge turnaround program at Nissan, having paid $5 billion last May for a 36.8% stake and having installed its own management, led by fix-it man Carlos Ghosn. He has vowed to resign if Nissan, which has $23 billion in debt and has lost $2.8 billion over the last six years, does not show a net profit by March, 2001. That's one tough job. For Renault, whose profits fell an estimated 40% last year, to $900 million, to take on another turnaround assignment may be asking too much. Samsung has been in trouble ever since it rolled out its first cars at its $3 billion plant in Pusan in 1998, just as the Asian crisis hit. Since then, Samsung has sold only 50,000 cars while losing $1.5 billion.

MISSED GOAL. The news coming out of Nissan is not good. Honda last year replaced Nissan as Japan's No. 2 auto maker in worldwide production behind Toyota. And this month, Nissan warned that its operating profit in the fiscal year ending in March would miss its forecast of $826 million. Analysts also doubt Nissan can meet its goal of selling 800,000 cars in Japan this year.

Against that gloomy backdrop, Renault is negotiating with Samsung Motors. The Korean company has been in court receivership since last year. Its Pusan plant has the capacity to build 240,000 cars a year but is turning out only 70 a day. No other prospective foreign buyer will find it very useful because of a prohibitive license agreement with Nissan. The plant produces a version of Nissan's Maxima sedan, the SM5, priced at $12,200. Owners say the car's quality is good, but its styling is considered dull.

SAMSUNG WORKER: *Saving jobs at the plant is a national political issue*

The French, sensing their advantage, are taking a tough line, refusing to assume any of Samsung's $3.8 billion debt. To help the sale, Samsung Group Chairman Lee Kun Hee has promised to pay off $2.5 billion of the d with much of the remai to be absorbed by o Samsung affiliates. Ana estimate that Renault w pay a bargain price—between $500 lion and $720 million for an 80% sta but not get a return on its invest for years. Samsung Group has agre keep a stake of 20% or so. It will help sell Renaults in the Korean ma where foreign cars accounted for 0.2% of 1.3 million vehicles sold in

GOOD TIMING. Others are willing to a hand to get a deal done. "We hav sured Renault executives that they get all legally possible support from says Souk Tae Ho, an official at Pu economic promotion bureau. Wo are ready to help, too. "We just wa work full speed, whether we have eign or local CEO," says Ahn Hyon a 28-year-old engineer. Even nat politics is playing in Renault's f With parliamentary elections du Apr. 13, President Kim Dae Jung's lennium Democratic Party feels pressure to find a way to save sung Motors.

If Renault does take on Samsu could serve as a new production b a recovering Asia. Its workforc been cut to 2,000 from 6,100 in but the Korean company badly new models and a stronger supplie work. "It's a big risk for a big rew says Gaetan Toulemonde, an anal Deutsche Bank Alex. Brown in Pa Renault that has already shown a ingness to think big in Japan ma go for it in Korea, too.

By Moon Ihlwan in Pusan and ly Thornton in Tokyo, with Carol lack in Paris

TOUGH CALL

SAMSUNG MOTORS HAS PLENTY OF PROBLEMS...

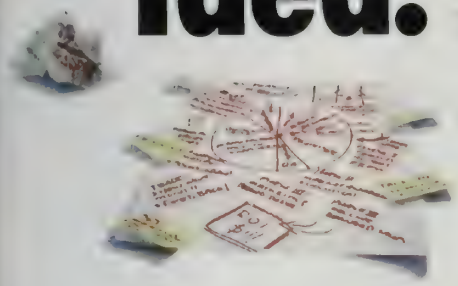
- The company is in receivership, and production was halted through most of 1999.
- Key suppliers are bankrupt or have stopped selling to Samsung.
- Its market share in Korea is tiny, and it needs new models to keep pace with leader Hyundai.

...BUT IT COULD STILL BE GOOD FOR RENAULT

- Samsung depends on technology from Nissan, which Renault took over last year.
- Management has already slashed the workforce by two-thirds, and the Samsung Group is assuming most of the carmaker's debt.
- A sale to Renault seems to have support among workers, managers, and government officials.

DATA: BUSINESS WEEK

Your Business Idea.



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AUSTRIA

HAIDER'S SECRET WEAPON: AUSTRIA INC.

A few execs openly back the far-right pol, and more may follow

He rose to power thanks to swelling support from Austria's disgruntled working class. Playing on their fear of immigrants, unemployment, and globalization, the populist far-right Freedom Party leader Jörg Haider engineered his party's participation in Austria's coalition government for the first time. But Haider also has powerful backers from an even more influential lobby—business.

Few executives will talk about it. For most, it's too risky, given European Union sanctions against Austria and Haider's previous statements in favor of Hitler's Nazi regime. But those who do speak out argue that Haider's support among Austria's private corporations and family-owned companies is growing. That's because these companies benefited far less than the state sector during the 50 years of "socialist partnership," when the Socialist Party and People's Party shared power and controlled everything from education to corporate boards. Now that the Freedom Party is in power, says Thomas Prinzhorn, a Haider business backer, "the fun is over" for the old guard.

Prinzhorn, 56, is the most prominent of a handful of high-profile executives known to support Haider. A paper magnate who studied at Harvard Business School, he runs the family-owned W. Hamburger, one of Europe's largest paper recyclers. And he represents the Freedom Party in the lower house of Parliament as party whip. He sees Haider as Austria's best chance for reform. "There is a lot of support among businesses for the Freedom Party, but few will admit to it," notes Prinzhorn.

Another known Freedom Party supporter is Veit Schalle, 57. He runs Billa, Austria's leading supermarket chain, but refuses to discuss his leanings publicly. Haider was also close to Herbert Turnauer, a wealthy industrialist and one of Austria's most powerful figures until his death this year at 92. Haider once called this mentor "a father figure."

AWAKENING? Why are businesspeople backing Haider? The main reason, says Prinzhorn, is that the Freedom Party promises to rock the old system from top to bottom. It vows to slash payments companies must make to social security programs, including unemployment insurance. It wants to repeal the so-called "speculation tax," which penalizes investors who hold stocks for under a year. The new government will also replace political appointees with dependent experts on the board state-controlled companies. It's all ai at ending the favoritism that has fled competition for years.

Another key mechanism for ro the old system will be privatization. state still holds stakes in everyth from Austrian Airlines to Telekom tria. But that's ending. "We are plan a privatization offensive the like which Austria has never seen," says nance Minister Karl-Heinz Grasser First on the block will be the st 41% stake in tobacco monopoly Au Tabak, worth some $430 million.

Many Austrian companies are ea ly awaiting the privatization camp "The program reflects a political a ening that has mostly come from Freedom Party," says Lorenz Fritz, eral secretary of the Industrial Ass influential lobby. But he and other also worry about Haider's tenden make insensitive remarks. "He's al having to deny things. He woul better off if he kept his mouth s Fritz notes.

Haider's political future may de on how much business backing h tracts. Although Haider holds no terial portfolio in the governmen signed off on its program and ser protégés into cabinet posts. If the omy gets moving, business suppo Haider could grow, improving chances of becoming Austria's chan one day. It remains to be seen wh Austria Inc. will become an apo for a European populist and paria

By Matthew Karnitschnig in V

HOW HAIDER'S PARTY IS APPEALING TO BUSINESS

SPEED PRIVATIZATION Backed b Haider, the new coalition governmer is planning a sweeping sell-off of state assets including stakes in Aust ria Telekom and the postal service.

SLASH SOCIAL CHARGES The government wants to slash employers' co tributions to programs such as unemployment insurance; this could lead to savings of $3.3 billion through 2003.

SHAKE UP BUREAUCRACY Business backs government plans to lay off 9,000 bureaucrats and streamlin to make it easier for companies to navigate regulatory hurdles.

DATA: BUSINESS WEEK

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JRPRISE, THE GERMAN GREENS RE MARCHING WITH BUSINESS

r years, German fund managers have lobbied passionately for tax breaks to encourage Germans to invest more of their retirement savings into stocks—a move could pump up to $10 billion into the country's capital ts. But it seemed a lost cause. The supposedly businessly Christian Democrats feared such a move would offend us retirees. And the labor-oriented Social Democrats d upon financial markets with suspicion.

w, surprisingly, the environmentalist Green Party wants ke the fund managers' wish come Yes, the Greens still want to dise nuclear power plants. But in a win votes from the entrepreneurternet generation, the Greens want est pension money in stocks, cut ax burden on business, and dise rules that strangle startups. of the established parties are as essive toward equities as the s," says Rüdiger von Rosen, chairof the German Share Institute, promotes stock ownership.

FISCHER: *He quelled the left wing*

leed, the Greens have become one most powerful forces for reform in any. Much of the credit goes to party leader Joschka er, 51, a former gadfly who has become a pragmatic and cted foreign minister in Gerhard Schröder's coalition nment. Fischer has quelled his party's left wing and d the Greens into an unexpected counterweight to the ing of Schröder's Social Democrats. These days, the s are bolstering Finance Minister Hans Eichel as he s through cuts in business and income taxes. "Eichel has gotten better backing from the Greens than from his arty," marvels PaineWebber Inc. analyst Alison Cottrell.

REAKS. The Greens' shift to the middle is partly an effort ure its long-term survival. The party earned less than 5% vote in recent elections in Saxony, shutting itself out of the state parliament. And it has come close to the 5% mark in past national elections. The Green Party could slip into obscurity if it doesn't attract a new generation to replace the aging 1960s radicals who founded it. "We used to concentrate on things like the environment, women, peace," says Christine Scheel, the Green point person on economic policy. "Now economics and taxes are among our central issues."

That change is winning friends in the business community. Among other things, the Greens want to eliminate the punitive levy that prevents German banks and insurance companies from selling their big stakes in German industry—a measure that could bust open the nation's insular business world. They fought a recent proposal to end a tax break for investment funds. They've called for rules to protect small investors and force companies to give out more information. And they want to make life easier for small and midsize companies. By eliminating bureaucracy, the party hopes to encourage start-up businesses and attract young entrepreneurs who find the mainstream parties too stodgy.

The strategy seems to be working. A Feb. 10 poll by the Forsa Institute, a public opinion research firm, puts the Greens's nationwide support at 9%, up from 6.7% in the 1998 elections. "There's a general recognition that the Greens can really work constructively," says Forsa Institute director Manfred Güllner. The Greens are likely to benefit further from voter disgust at the Christian Democrats' campaign-funding scandal, which forced CDU chairman Wolfgang Schaüble to resign on Feb. 16. If Green candidates do well in upcoming elections in the states of Schleswig-Holstein and North Rhine-Westphalia, the party could emerge with more clout inside the coalition—and more power to push reform.

By Jack Ewing in Frankfurt

GLOBAL WRAPUP

ONESIA SUSPENDS A GENERAL

fter several false starts, President urrahman Wahid has suspended eral Wiranto as Indonesia's defense ster. Wiranto will now stand trial akarta on charges that he was reisible for the mass murder in East or last September. Wiranto was red by the current interior minister, tired general who has shown supfor Wahid. If Wiranto is found y, Wahid says that he will formalismiss him from the cabinet and equently pardon him. That may not be enough to satisfy the U. N., which has called for Wiranto to face an international tribunal on crimes against humanity. But it will be enough to serve Wahid's purpose of proving the authority of civilian government over a powerful military as his strife-torn nation struggles to rebuild its economy.

TOKYO BANKS ON A NEW TAX

▶ Tokyo's big banks are up in arms over governor Shintaro Ishihara's latest effort to clean up the metropolitan government's financial mess. Ishihara has called for a 3% local tax over the next five years on the gross profits of banks with assets of more than $46 billion. The levy would raise about $1 billion for Tokyo, which is wrestling with a $6 billion budget deficit and a $60 billion debt load. The head of the Japanese Bankers Assn., Katsuyuki Sugita, says that his group might file a lawsuit against Tokyo for what he termed an unfair plan targeted only at big banks. Ishihara counters that major banks are paying little or no tax because of write-offs for huge debts that they incurred over the past decade.

CABLE

CABLE'S UNLIKELY EMPIRE

UnitedGlobal has jerry-built a huge network outside the U.S.

DEALMAKERS: *Fries and Schneider bought into 20 sy tems just this past year*

Sitting in their headquarters in a suburban Denver high-rise, top executives of the biggest cable-TV empire outside the U.S. are pondering whether to plaster the company name on their private Bombardier jet. "Nah, too showy," says Gene W. Schneider, UnitedGlobalCom Inc.'s 73-year-old chairman.

Certainly keeping a low profile has not hurt UnitedGlobal or Schneider so far. In the past year alone, the company has struck more than 20 deals to buy into cable-TV systems from Santiago, Chile, to Limoges, France. Today, it owns or controls cable systems with a potential market of more than 15 million homes in 23 countries. UnitedGlobal figures it can sign up many of these to pay for telephone and Internet services as well as TV shows. The plan seems to have captivated Wall Street, which ignited UnitedGlobal's stock price to $80½ on Feb. 15, from $7 in October, 1998. "They have an awfully aggressive game plan," says Mitchell Freund, head of international distribution for Gaylord Cable Network. "I don't know anyone else that is buying up as many systems as they are."

BIG-TIME BACKERS. Being well-heeled helps. After raising more than $4 billion in the past year—including $493 million last September from big-time backers John C. Malone's Liberty Media Group and Microsoft Corp.—UnitedGlobal has been kicking the tires of ca systems all over the plan Schneider, a cable vet who s his U.S. systems to Malone the late 1980s, and Michael Fries, UnitedGlobal's 37-year- president, are betting that rest of the world will embr the digital "bundling" strat that U.S. cable companies h just started to deploy. "Th guys have been working at most important thing—gett in the front door," says Rob R. Bennett, president of Libe Media. "They're way ahead everyone else."

The problem is, competi from satellite and telephone ants is much more intense side the U.S. And while st side cable operators have g through years of consolida to create "clusters" of adja systems over which to spr upgrading and programm costs, UnitedGlobal is a m mash of holdings.

In Europe, UnitedGlobal stakes in dozens of compa through Amsterdam-ba United Pan-Europe Comm cations, its largest unit. Run by Sch der's 44-year-old son Mark, UPC stakes in cable systems serving 7 m consumers in 13 European Union c tries and Israel. But UPC misses o the continent's biggest markets: It no presence in Britain and little in many or France.

And instead of being able to offe same service everywhere, UPC ope in 11 different languages. Still, bec customers pay as little as $3 a m in Romania and about $11 in places

UNITEDGLOBAL'S REACH *Major holdings through September, 1999*

	EUROPE United Pan-Europe Communications (61.5% owned)	**SOUTH PACIFIC** Austar United Communications (75.5% owned)	**LATIN AMERICA** **
MAJOR COUNTRIES	Netherlands, Austria, France, Poland	Australia, New Zealand	Chile, Peru
CABLE SUBSCRIBERS*	7 million*	255,906	484,089
TELEPHONY SUBSCRIBERS	227,300	4,190	13,428
REVENUES	$355 million	$73 million	$97 million

*Subscriber data for Europe through Dec. 31, 1999. **Ownership stakes 34% to 100% depending on country

DATA: UNITEDGLOBALCOM

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Seven more reasons to fee
(plus one that everyone already knows

VIAGRA *is widely used*

This is one fact about VIAGRA *that most everyone is familiar with. Millions of men with erectile dysfunction* (ED) *have enjoyed more satisfying sex lives because of* VIAGRA. *But here are 7 more facts about* VIAGRA *that may be useful to you.*

VIAGRA is effective in men with all types of ED

VIAGRA improves erections in up to 4 of 5 men who take it compared with 1 out of 4 for sugar tablets, regardless of how severe their ED is, how long they have had ED, what caused it, or even how old they are. If you're not satisfied with your sex life due to poor erections during recent months, talk to your doctor. You may be suffering from mild ED—and VIAGRA can help.

VIAGRA has been extensively studied

In fact, in clinical trials of more than 3000 patients, VIAGRA was proven to be effective while having an excellent safety profile. And you can feel confident knowing that more than 250,000 doctors have written more than 14 million prescriptions for VIAGRA, as of November 1999, for more than 5 million patients.*

VIAGRA works when you need it

VIAGRA begins working in as fast as 30 minutes, but it can be taken as much as 4 hours in advance of sexual activity. A general rule is to take VIAGRA about 1 hour before sex. That way, you can use the time to get intimate with your partner. Be spontaneous. Be playful. Have fun.

VIAGRA only works when you are sexually stimulated

When a man is sexually stimulated, the arteries in the penis relax, and more blood flows into the penis, creating an erection. VIAGRA works by helping the blood vessels in the penis to relax, thereby increasing blood flow to the penis.

With VIAGRA, you must be sexually aroused (physically, visually, etc) to get an erection. If you take VIAGRA and are not sexually stimulated in any way, nothing will happen.

VIAGRA is not a hormone, an herbal supplement, or an aphrodisiac. VIAGRA is a prescription medication that can improve th erectile function of most men with erection problems. So with VIAGRA, a touch or a glanc from your partner can once again lead to something more.

*Data on file. Pfizer Inc. New York, NY.

For more information, call 1-888-4VIAGRA or visit www.viagra.com.

Please see patient summary of information for VIAGRA (25-*mg*, 50-*mg*, 100-*mg*) *tablets on the following page.*

VIAGRA comes in 3 dosing strengths

With 3 different doses (25 mg, 50 mg, 100 mg), VIAGRA has a strength that works best for you. Like many medications, your doctor may have to adjust your initial VIAGRA dose if it doesn't produce the desired results or you're bothered by side effects. Do not take more VIAGRA than your doctor prescribes, and do not take VIAGRA more than once a day.

VIAGRA works best on an empty stomach

But if dinner is in your plans, you can still take VIAGRA. However, taking VIAGRA after a high-fat meal (such as a cheeseburger and french fries) may cause the medication to take a little longer to start working.

VIAGRA is well tolerated

Like all medications, VIAGRA can cause some side effects. These are usually mild and don't last longer than a few hours. In clinical trials, the vast majority of these side effects did not cause patients to stop taking VIAGRA. Some of these side effects are more likely to occur with higher doses of VIAGRA. With VIAGRA, the most common side effects are headache, facial flushing, and upset stomach. VIAGRA may also briefly cause bluish vision, sensitivity to light, or blurred vision. In the rare event of an erection lasting more than 4 hours, seek immediate medical help.

VIAGRA is not for everyone. If you're a man who uses nitrate drugs, never take VIAGRA—your blood pressure could suddenly drop to an unsafe level.

Be sure to ask your doctor if your heart is healthy enough to handle the extra strain of sexual activity. If you have chest pains, dizziness, or nausea during sex, stop and immediately tell your doctor.

ood about VIAGRA

Last year, VIAGRA *helped millions of men and their partners find something that was missing from their lives. Isn't it time you found out more about* VIAGRA?

VIAGRA
(sildenafil citrate) tablets

Love life again.

Love life again.

PATIENT SUMMARY OF INFORMATION ABOUT

VIAGRA®
(sildenafil citrate) tablets

This summary contains important information about VIAGRA®. It is not meant to take the place of your doctor's instructions. Read this information carefully before you start taking VIAGRA. Ask your doctor or pharmacist if you do not understand any of this information or if you want to know more about VIAGRA.

This medicine can help many men when it is used as prescribed by their doctors. However, VIAGRA is not for everyone. It is intended for use only by men who have a condition called erectile dysfunction.

VIAGRA must never be used by men who are taking medicines that contain nitrates of any kind, at any time. This includes nitroglycerin. If you take VIAGRA with any nitrate medicine your blood pressure could suddenly drop to an unsafe or life threatening level.

What Is VIAGRA?

VIAGRA is a pill used to treat erectile dysfunction (impotence) in men. It can help many men who have erectile dysfunction get and keep an erection when they become sexually excited (stimulated).

You will not get an erection just by taking this medicine. VIAGRA helps a man with erectile dysfunction get an erection only when he is sexually excited.

How Sex Affects the Body

When a man is sexually excited, the penis rapidly fills with more blood than usual. The penis then expands and hardens. This is called an erection. After the man is done having sex, this extra blood flows out of the penis back into the body. The erection goes away. If an erection lasts for a long time (more than 6 hours), it can permanently damage your penis. You should call a doctor immediately if you ever have a prolonged erection that lasts more than 4 hours.

Some conditions and medicines interfere with this natural erection process. The penis cannot fill with enough blood. The man cannot have an erection. This is called erectile dysfunction if it becomes a frequent problem.

During sex, your heart works harder. Therefore sexual activity may not be advisable for people who have heart problems. Before you start any treatment for erectile dysfunction, ask your doctor if your heart is healthy enough to handle the extra strain of having sex. If you have chest pains, dizziness or nausea during sex, stop having sex and immediately tell your doctor you have had this problem.

How VIAGRA Works

VIAGRA enables many men with erectile dysfunction to respond to sexual stimulation. When a man is sexually excited, VIAGRA helps the penis fill with enough blood to cause an erection. After sex is over, the erection goes away.

VIAGRA Is Not for Everyone

As noted above (*How Sex Affects the Body*), ask your doctor if your heart is healthy enough for sexual activity.

If you take any medicines that contain nitrates–either regularly or as needed–you should never take VIAGRA. If you take VIAGRA with any nitrate medicine or recreational drug containing nitrates, your blood pressure could suddenly drop to an unsafe level. You could get dizzy, faint, or even have a heart attack or stroke. Nitrates are found in many prescription medicines that are used to treat angina (chest pain due to heart disease) such as:

- nitroglycerin (sprays, ointments, skin patches or pastes, and tablets that are swallowed or dissolved in the mouth)
- isosorbide mononitrate and isosorbide dinitrate (tablets that are swallowed, chewed, or dissolved in the mouth)

Nitrates are also found in recreational drugs such as amyl nitrate or nitrite ("poppers"). If you are not sure if any of your medicines contain nitrates, or if you do not understand what nitrates are, ask your doctor or pharmacist.

VIAGRA is only for patients with erectile dysfunction. VIAGRA is not for newborns, children, or women. Do not let anyone else take your VIAGRA. VIAGRA must be used only under a doctor's supervision.

What VIAGRA Does Not Do

- VIAGRA does not cure erectile dysfunction. It is a treatment for erectile dysfunction.
- VIAGRA does not protect you or your partner from getting sexually transmitted diseases, including HIV–the virus that causes AIDS.
- VIAGRA is not a hormone or an aphrodisiac.

What To Tell Your Doctor Before You Begin VIAGRA

Only your doctor can decide if VIAGRA is right for you. VIAGRA can cause mild, temporary lowering of your blood pressure. You will need to have a thorough medical exam to diagnose your erectile dysfunction and to find out if you can safely take VIAGRA alone or with your other medicines. Your doctor should determine if your heart is healthy enough to handle the extra strain of having sex.

Be sure to tell your doctor if you:

- have ever had any heart problems (e.g., angina, chest pain, heart failure, irregular heart beats, or heart attack)
- have ever had a stroke
- have low or high blood pressure
- have a rare inherited eye disease called retinitis pigmentosa
- have ever had any kidney problems
- have ever had any liver problems
- have ever had any blood problems, including sickle cell anemia or leukemia
- are allergic to sildenafil or any of the other ingredients of VIAGRA tablets
- have a deformed penis, Peyronie's disease, or ever had an erection that lasted more than 4 hours
- have stomach ulcers or any types of bleeding problems
- are taking any other medicines

VIAGRA and Other Medicines

Some medicines can change the way VIAGRA works. Tell your doctor about **any medicines** you are taking. Do not start or stop taking any medicines before checking with your doctor or pharmacist. This includes prescription and nonprescription medicines or remedies. Remember, VIAGRA should never be used with medicines that contain nitrates (see *VIAGRA Is Not for Everyone*). If you are taking a protease inhibitor, your dose may be adjusted (please see *Finding the Right Dose for You*.) VIAGRA should not be used with any other medical treatments that cause erections. These treatments include pills, medicines that are injected or inserted into the penis, implants or vacuum pumps.

Finding the Right Dose for You

VIAGRA comes in different doses (25 mg, 50 mg and 100 mg). If you do not get the results you expect, talk with your doctor. You and your doctor can determine the dose that works best for you.

- Do not take more VIAGRA than your doctor prescribes.
- If you think you need a larger dose of VIAGRA, check with your doctor.
- VIAGRA should not be taken more than once a day.

If you are older than age 65, or have serious liver or kidney problems, your doctor may start you at the lowest dose (25 mg) of VIAGRA. If you are taking protease inhibitors, such as for the treatment of HIV, your doctor may recommend a 25 mg dose and may limit you to a maximum single dose of 25 mg of VIAGRA in a 48 hour period.

How To Take VIAGRA

Take VIAGRA about one hour before you plan to have sex. Beginning in about 30 minutes and for up to 4 hours, VIAGRA can help you get an erection if you are sexually excited. If you take VIAGRA after a high-fat meal (such as a cheeseburger and french fries), the medicine may take a little longer to start working. VIAGRA can help you get an erection when you are sexually excited. You will not get an erection just by taking the pill.

Possible Side Effects

Like all medicines, VIAGRA can cause some side effects. These effects are usually mild to moderate and usually don't last longer than a few hours. Some of these side effects are more likely to occur with higher doses. The most common side effects of VIAGRA are headache, flushing of the face, and upset stomach. Less common side effects that may occur are temporary changes in color vision (such as trouble telling the difference between blue and green objects or having a blue color tinge to them), eyes being more sensitive to light, or blurred vision.

In rare instances, men have reported an erection that lasts many hours. You should call a doctor immediately if you ever have an erection that lasts more than 4 hours. If not treated right away, permanent damage to your penis could occur (see *How Sex Affects the Body*).

Heart attack, stroke, irregular heart beats, and death have been reported rarely in men taking VIAGRA. Most, but not all, of these men had heart problems before taking this medicine. It is not possible to determine whether these events were directly related to VIAGRA.

VIAGRA may cause other side effects besides those listed on this sheet. If you want more information or develop any side effects or symptoms you are concerned about, call your doctor.

Accidental Overdose

In case of accidental overdose, call your doctor right away.

Storing VIAGRA

Keep VIAGRA out of the reach of children. Keep VIAGRA in its original container. Store at room temperature, 59°-86°F (15°-30°C).

For More Information on VIAGRA

VIAGRA is a prescription medicine used to treat erectile dysfunction. Only your doctor can decide if it is right for you. This sheet is only a summary. If you have any questions or want more information about VIAGRA, talk with your doctor or pharmacist, visit www.viagra.com, or call 1-888-4VIAGRA.

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So, UPC is investing heavily to upg
its systems, and there's lots of roo
grow. Plus, it's rolling out a high-s
Web access service, called Chello, t
modeled after Excite@Home C
which is signing up 3,500 subscribers
week at $40 a month.

After Europe, UnitedGlobal's big
push is in Latin America. There,
market for Internet and digital TV
vices alone will jump to $11 billio
2005, from $319 million in 1999, pre
Patrick Grenham, telecom analyst
Salomon Smith Barney. UnitedGl
owns systems in four Latin Amer
countries, including Chile's largest
ble system. "The cable markets in
rope and Latin America are where
U.S. was years ago," says Fries.
some cases, there are huge opportu
to sell cable customers phone or I
net services because the incum
phone companies just aren't doi
very good job."

Not that it'll be easy. Prices are
ing fast for cable systems in Eu
And UnitedGlobal is not a big play
major Latin markets such as Brazi
Mexico. Plus it faces competition
other gringo investors such as H
Muse, Tate & Furst Inc., and fro
trenched rivals including Brazilia
giant Globo Cabo and Spain's Telef

Certainly, the Schneiders know
cable. Gene and his brother Ric
started out helping their uncle
Casper, Wyo., for cable TV in 195
the mid-'80s, Gene had built Unite
ble Television Corp. into the na
eighth-largest cable system. Whe
sold it to Malone's Tele-Communica
Inc. in 1989, for $2 billion, Schn
kept a couple of foreign systems
TCI didn't want. That formed the
of United International Holdings
recently renamed UnitedGlobalCo

Investor enthusiasm may be attri
to how reminiscent of Schneider's s
gy is to Malone's assembly of TCI. T
he was criticized for years for TCI's
quality and second-tier markets, Ma
a UnitedGlobal director—still ma
to sell it to AT&T for $55 billion last
With a better service record, some
lysts already value the company at
ly $12 billion—$5 billion more than
its current run-up level. If the cable
is to be played outside the U.S. the
way as it is inside, then perhaps U
Global's ultimate goal is to be acquir
that case, Schneider definitely n
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COMMENTARY

By Paul Raeburn

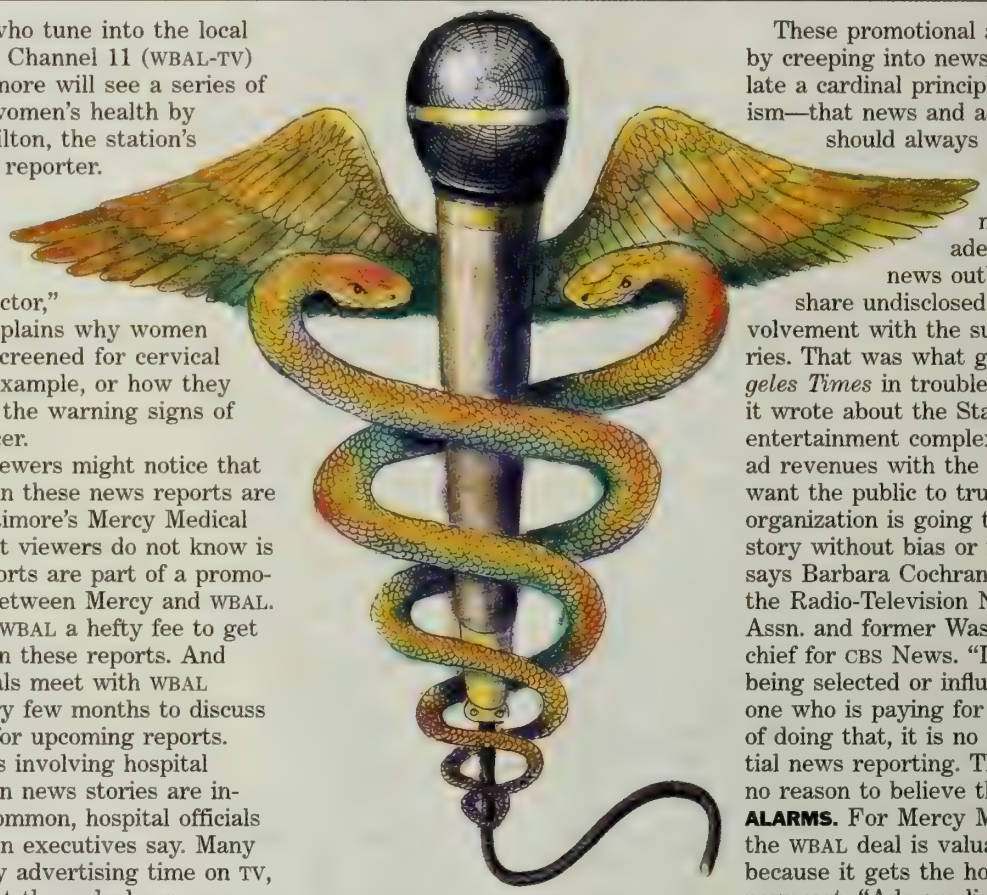
THE CORRUPTION OF TV HEALTH NEWS

Viewers who tune into the local news on Channel 11 (WBAL-TV) in Baltimore will see a series of reports on women's health by Donna Hamilton, the station's health news reporter. In these reports, part of a series called "The Woman's Doctor," Hamilton explains why women should get screened for cervical cancer, for example, or how they can identify the warning signs of ovarian cancer.

Careful viewers might notice that the doctors in these news reports are all from Baltimore's Mercy Medical Center. What viewers do not know is that the reports are part of a promotional deal between Mercy and WBAL. Mercy pays WBAL a hefty fee to get its doctors on these reports. And Mercy officials meet with WBAL staffers every few months to discuss story ideas for upcoming reports.

Such deals involving hospital placements in news stories are increasingly common, hospital officials and television executives say. Many hospitals buy advertising time on TV, of course, but these deals are something different: Mercy wouldn't say what it pays, but hospitals can spend hundreds of thousands of dollars per year to get their doctors and their hospitals on the news.

RIVALRY. It's difficult to know exactly how widespread such arrangements are. Hospitals being offered the deals are sometimes reluctant to talk about them for fear of angering local stations and being locked out of coverage. Hospitals compete ferociously for patients, and loss of TV coverage can be devastating. Gary N. Michael, vice-president for marketing and business development at Mercy, says he has received numerous calls from other stations seeking advice on setting up such programs themselves. Medstar Television, a production company in Allentown, Pa., that brokers these deals and prepares the news reports, wouldn't say how many clients it has, but it did say its clients include hospitals, health plans, and TV stations in San Diego, Denver, Hawaii, and San Francisco. A hospital promotion group within the Association of American Medical Colleges (AAMC), concerned about these new kinds of news sponsorships, has scheduled a panel session to discuss the issue at its upcoming meeting in March.



Consumers need unbiased medical information, not paid "news reports"

These promotional arrangements, by creeping into news reports, violate a cardinal principle of journalism—that news and advertising should always be kept separate. Advertising should never masquerade as news. And news outlets should not share undisclosed financial involvement with the subjects of stories. That was what got the *Los Angeles Times* in trouble last fall, when it wrote about the Staples Center entertainment complex and shared ad revenues with the center. "You want the public to trust that a news organization is going to approach a story without bias or favoritism," says Barbara Cochran, president of the Radio-Television News Directors Assn. and former Washington bureau chief for CBS News. "If the content being selected or influenced by some one who is paying for the privilege of doing that, it is no longer impartial news reporting. There would be no reason to believe that it's honest."

ALARMS. For Mercy Medical Center, the WBAL deal is valuable precisely because it gets the hospital into the newscast. "Ads are limited by the amount of time—there's only so much you can say in 30 seconds," says Michael. "We wanted to showcase our docs as real people and get into the nitty-gritty issues, and I think you do that best through a news story." Mercy spends a third of its promotional budget on its WBAL contract. It employs a full-time public-relations specialist to administer the program, and it has hired a local sportscaster to give media training to doctors before they appear on TV.

The program clearly has proved its effectiveness, Michael says. When "The Woman's Doctor" began airing in 1994, Mercy was "a distant seventh...in the metro area when you asked what hospital you would recommend to a friend for women's health," Michael says. "A

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ASPECT
Defining the Customer Experience

> "A PR agency or TV sales department can guarantee that an organization's physicians will appear on commercials...but they can't guarantee the physicians will be on the news, the most credible source for health information..."
>
> — FROM A MEDSTAR PROPOSAL THAT PUTS A HOSPITAL'S DOCTORS ON LOCAL TELEVISION NEWS, FOR A FEE

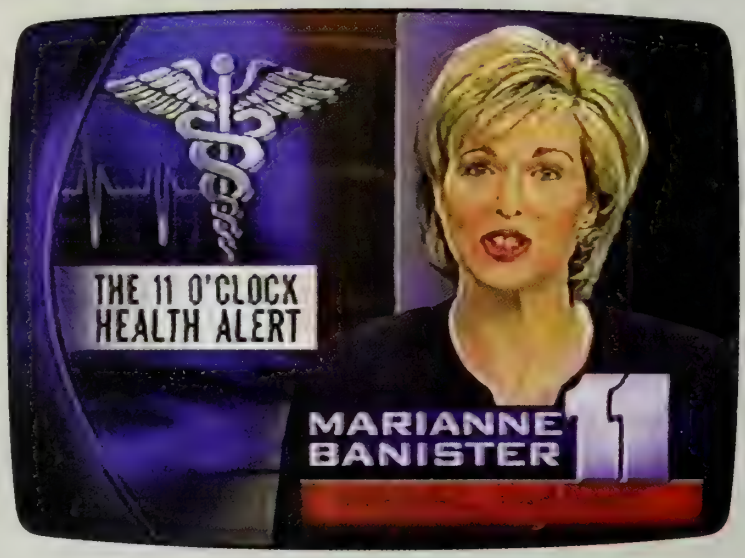
ter one year, we were ranked No. 2, and in 1997, we became No. 1."

For WBAL, the arrangement "was a new opportunity to create revenue," says Ronald L. Briggs, an account executive who works with Michael on the program. It also helped the station attract viewers. "In the beginning, it allowed us to promote our news. We were promoting Mercy, Mercy was promoting 'The Woman's Doctor,' and it was promoting viewership," he says. Mercy "has been on the cutting edge of marketing."

Marianne Banister, a WBAL-TV anchor who sometimes introduces the Mercy reports, says the practice has alarmed reporters. "It has a lot of people in newsrooms going 'Whoa, whoa—what's going on?'" she says. She "was not particularly comfortable with it to begin with," but she feels the station has not crossed the "fine line between advertising, promotion, and news." News Director Princell Hair does not think the reports compromise the station's standards, because the news staff controls the content. "We decide what story to do, what not to do," he says. "We have complete control over the editorial content. If we didn't, I wouldn't be comfortable with this." What if the relationship with Mercy became known to viewers? "I don't think this would taint our relationship with viewers at all," he says. "It's providing them valuable information."

"RELATIONSHIP." Studies by the Radio-Television News Directors Assn., however, suggest that viewers are concerned about advertisers' influence on news. A poll of 1,007 people in 1998 found that 84% believe advertisers "sometimes or often" improperly influence news content. A similar poll of 300 TV news directors found that only 43% of them agreed.

Not every hospital is eager to pursue such TV deals. L. G. Blanchard, director of Health Sciences News & Community Relations at the University of Washington and the organizer of the medical colleges' meeting on this subject, recently turned down such a proposal. "To the uninvolved observer, it would appear that we were being asked to purchase positive news coverage," he says. He says colleagues at other hospitals have told him that prices for such arrangements can range from $25,000 to $200,000 per year, he says. "I can see a day when nobody is going to get news coverage unless they've paid for it. That's a world I don't want to live in."



"COMPLETE CONTROL": *Banister isn't troubled by WBAL's reports*

Medstar Television Inc. has been arranging such relationships between hospitals and TV stations for more than a decade. "We build a relationship between a local television station and an underwriter in a marketplace," says Vice-President Susan Ferrari. "It could be a TV station and a hospital, or a TV station and a health plan." The "underwriter" pays Medstar to produce two 90-second reports each week, which are given free to local stations. The stations' reporters add their voices, making it appear that the reports were produced by the local station. "It's not advertising. It's really content that's prepared for the newscast," says Ferrari. "The TV s tion airs the program on its newscast." The reports are preceded or followed by brief advertising spots identifying the sponsor, but the sp do not explain that the sponsor pa for production of the news items.

NO SALE. Medstar would not say h much it charges, but a Medstar pr posal obtained by BUSINESS WEEK the yearly charge for airing two n spots per week for a year is at lea $364,000. The figure rises in subse quent years of a multi year deal. In its propo Medstar notes the par ular value of featuring doctors on the news: " PR agency or TV sales partment can guarant that an organization's physicians will appear TV commercials... But they can't guarantee t physicians will be on news, the most credib source for health info tion." Edward C. Dou erty, Medstar's vice-p dent for broadcasting defended the compan editorial integrity. "W and the stations main total editorial control from topic selection, research, scr writing, final editing," he says.

That's not quite good enough. tal editorial control" ought to me the ability to choose the most qu fied doctors and researchers to b part of a story—without being in enced by the hospital sponsoring report. The sponsorship of TV ne stories is a problem with an easy swer: TV stations shouldn't offer sell the news, and hospitals shou buy it. Medical news affects life- death decisions every day. It is e sential that viewers and patients lieve they are getting direct, unbiased information from local stations. If television news is pr pared for the benefit of sponsors rather than for the public, all of credibility is lost.

Raeburn is senior editor for s ence and technology.

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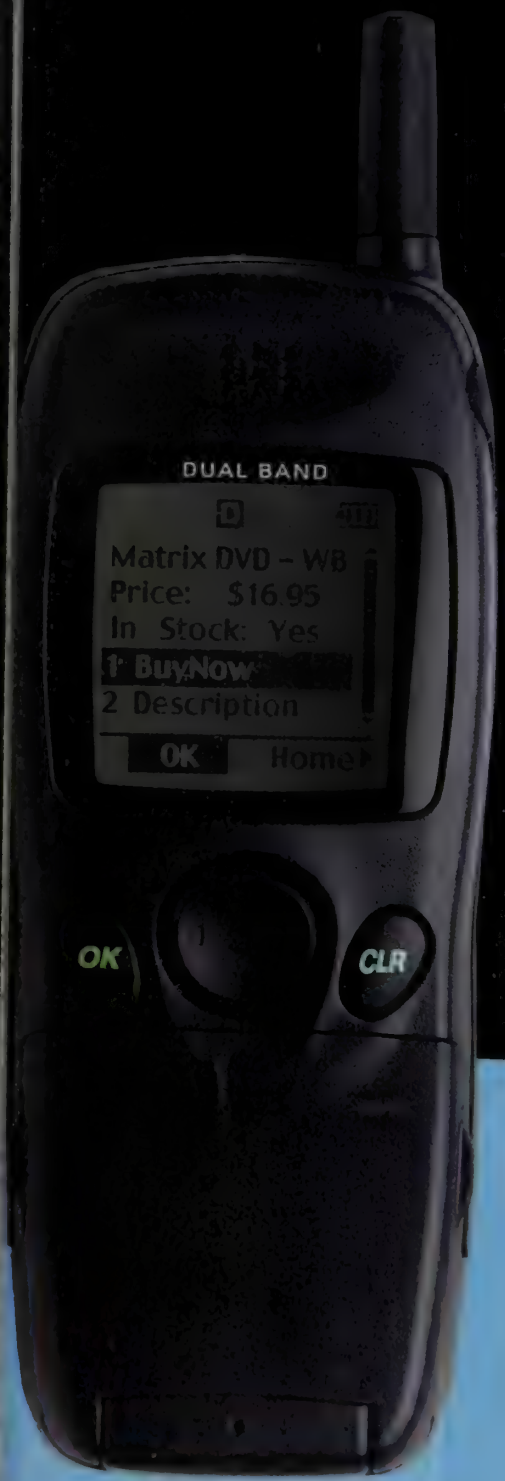

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Developments to Watch

EDITED BY OTIS PORT

A REASON TO GET MOLECULES EXCITED

CHEMISTS DESIGNING NEW drugs and environmentalists seeking new methods to clean up pollution are getting a powerful analytical tool. Researchers at the University of Wisconsin-Madison have discovered a way to chart the fleeting chemical interactions between molecules—vital information that until now has often been undetectable.

By aiming the energy in twin infrared laser beams on a minute clump of molecules, the instrument excites the molecules, or causes them to vibrate. The so-called signature of this reaction reveals the exact chemical bonds between specific molecules. While other laboratory tools can glean similar insights, none combines the versatility and accuracy of the dual-laser approach, according to John C. Wright, the chemist who leads the Wisconsin research. The precision afforded by the technique, Wright believes, should be especially valuable to drug designers because "they need to know specifically how a protein and a drug are going to 'dock' with each other."

Wisconsin isn't going to patent the new methodology, dubbed Dove. So companies can rig up such a system, perhaps tapping Wright's team for assistance. □

21ST CENTURY CHIPS WITH LOTS OF ZIP

FOR PORTENTS OF THE FUTURE OF CHIPS AND ELECTRONICS, the International Solid-State Circuits Conference (ISSCC) is a must. This year's meeting in San Francisco ushered in the 21st century with a new benchmark in microprocessors: gigahertz speeds. These chips run at a blistering 1 billion cycles per second, or 25% faster than today's zippiest silicon. Made by Intel, IBM, and Advanced Micro Devices, the chips will hit the market later this year. In addition, Lucent Technologies' Bell Laboratories uncorked plans for a digital signal-processing (DSP) chip that promises 50 billion operations a second. That's 16 times faster than existing DSP chips.

Japan's NEC Corp., meanwhile, marked another important twist in gigachips—combining ultraspeedy processing plus ultralow power consumption. NEC's chip crunches 1 billion instructions per second yet consumes less than 1 watt of electricity. All chipmakers are targeting 1-watt silicon, or a third of the usual power level, but NEC's design also generates less heat. At full speed, it produces no more than 20% as much heat as current microprocessors—and drastically slashes its power usage and heat dissipation when it goes into standby mode. In multimedia laptop computers and portable devices, NEC figures the chips could extend battery life as much as tenfold.

Overall, the outlook at ISSCC was quite upbeat. Worries about silicon hitting physical limits by 2015 were pushed aside by advances in many areas, such as vertical transistors that will allow chips to be packed with more switches than is possible with today's flat transistors. □

INNOVATIONS

■ Deteriorating vision related to diabetes is the most common cause of blindness in young adults. Blood vessels in the eye grow rampantly, interfering with the retina's ability to discern images. Now, researchers at Johns Hopkins University and Ciba Vision Corp. have found some promising drugs that appear to shut down this abnormal growth. The most effective candidate from the experiments with mice, called PKC 412, could be tested with people as soon as this spring.

■ Since 1957, when Russia launched the first satellite—the basketball-size Sputnik—the earth's orbiting electronics systems have tended to grow ever bigger. But future generations of satellites may be better described as chicks, not birds. Small satellites no bigger than a deck of cards have been developed by Aerospace Corp., Rockwell International, and Stanford University. The so-called picosatellites were unleashed from a "mothersat" in early February. Despite their tiny size, they were soon exchanging chirps with a ground station, blazing a trail for smaller, cheaper satellites.

■ It's like fighting fire with fire—but inside your mouth, to prevent cavities. University of Florida dentist Jeffrey Hillman has genetically modified *Streptococcus mutans*, the bacterium in your mouth that causes tooth decay by converting sugars into corrosive lactic acid. The altered version doesn't produce acid and forms a protective coating on teeth that repels the natural bacterium. The coating seems to last for long periods, and Hillman speculates that a single treatment might suffice for a lifetime.

SURF 'N' TURF HERBICIDE FROM AUSTRALIA

HERBICIDE RUNOFF IS c
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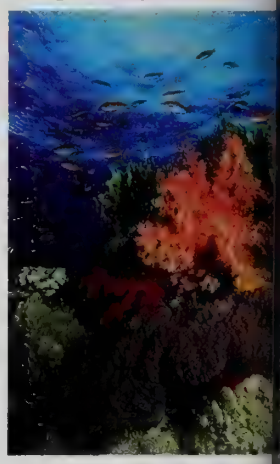

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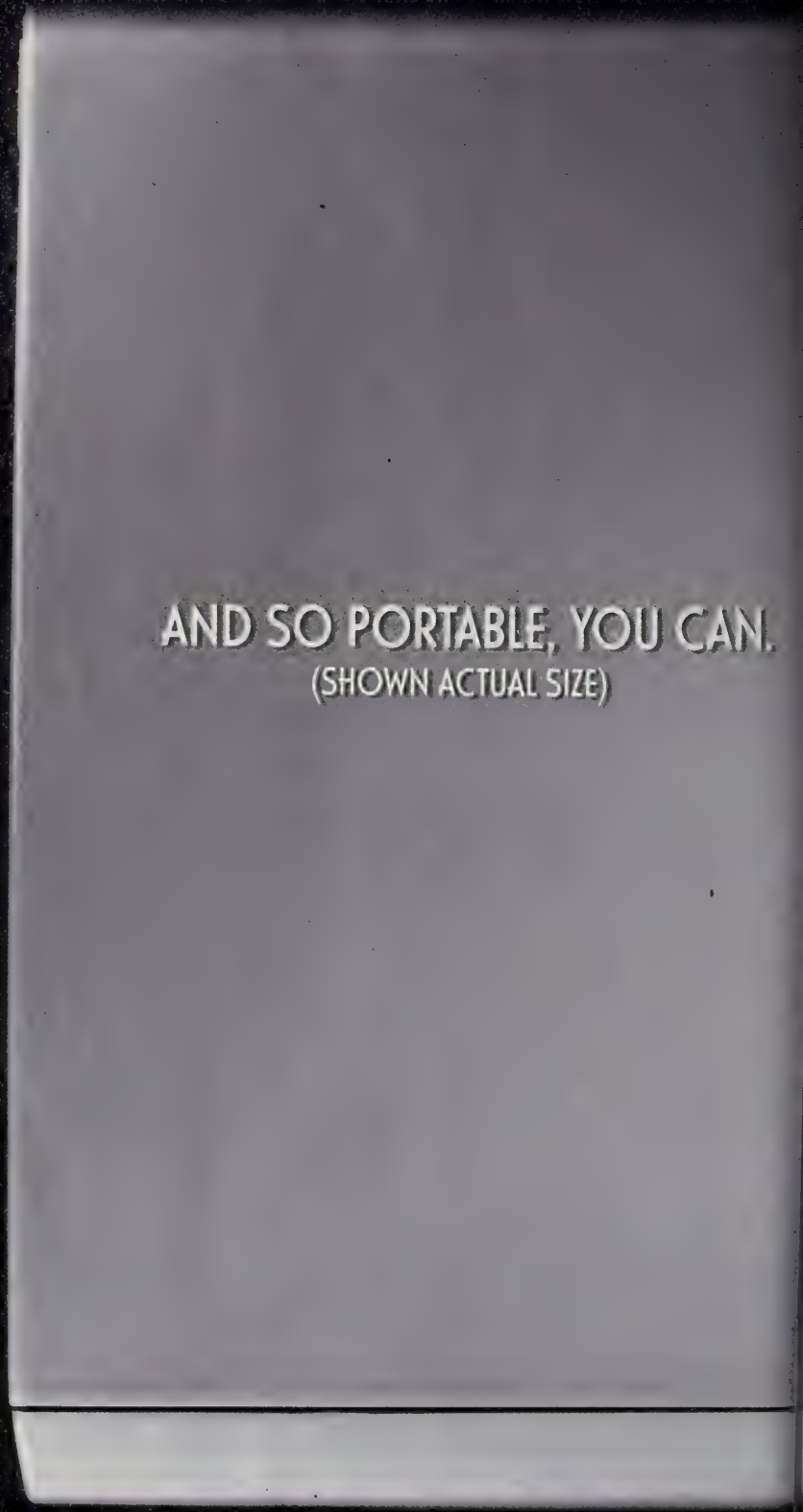

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TECHNOLOGY STRATEGIES

AT FORD, E-COMMERCE IS JOB 1

No other manufacturer is pushing so boldly onto the Web

The Rust Belt is approaching Net-speed. It was just last June, when a Ford Motor Co. task force made a presentation to Chief Executive Jacques A. Nasser and his top managers. Originally assigned to study how the Internet could improve manufacturing, the team had gone all out, showing Nasser a computer simulation of the auto company of the future. The vision was breathtaking: factories that built cars to order, dealerships that reported problems instantly so that plants could make adjustments, and suppliers that controlled inventories at Ford factories—much the way retailer Wal-Mart Stores Inc. does when it gives vendors responsibility for stocking its store shelves. "We were mesmerized," says Alice Miles, a veteran Ford purchasing manager. Nasser gave it an instant thumb's-up. "This is nothing short of reinventing the auto industry," he says.

Since then, the old-line Ford has been latching on to the Net like some new dot-com. In January, Ford showed off futuristic "24/7" concept vehicles packed with cybergoodies such as Internet connections and e-mail. Miles now heads auto-xchange, a newly created online trading mart for Ford's 30,000 suppliers that began taking orders in February. And in an effort to wire up its far-flung workforce of 350,000 people, Ford announced on Feb. 3 that it would offer each of them a home computer, a printer, and Internet access for $5 a month.

Some 90 years after Ford led the world into the era of mass manufac ing, the No. 2 auto maker wants reprise its trailblazing role—and c in the way it did decades ago. By u the Net to bust up bureaucracy and leash radically new ways of plann making, and selling cars, Ford could come a model of efficiency in the ternet Age. Streamlining suppliers distribution using the Web could am to savings equal to 25% of the r price of a car, says analyst Jonat Lawrence of Dain Rauscher. The a xchange mart could generate $3 bi in transaction fees within five years which Ford would get a hefty cut. that doesn't take into account monthly service fees of $20 to $25 Ford could collect if drivers should w to hop on to the Net while roa down the highway. Says David Bo

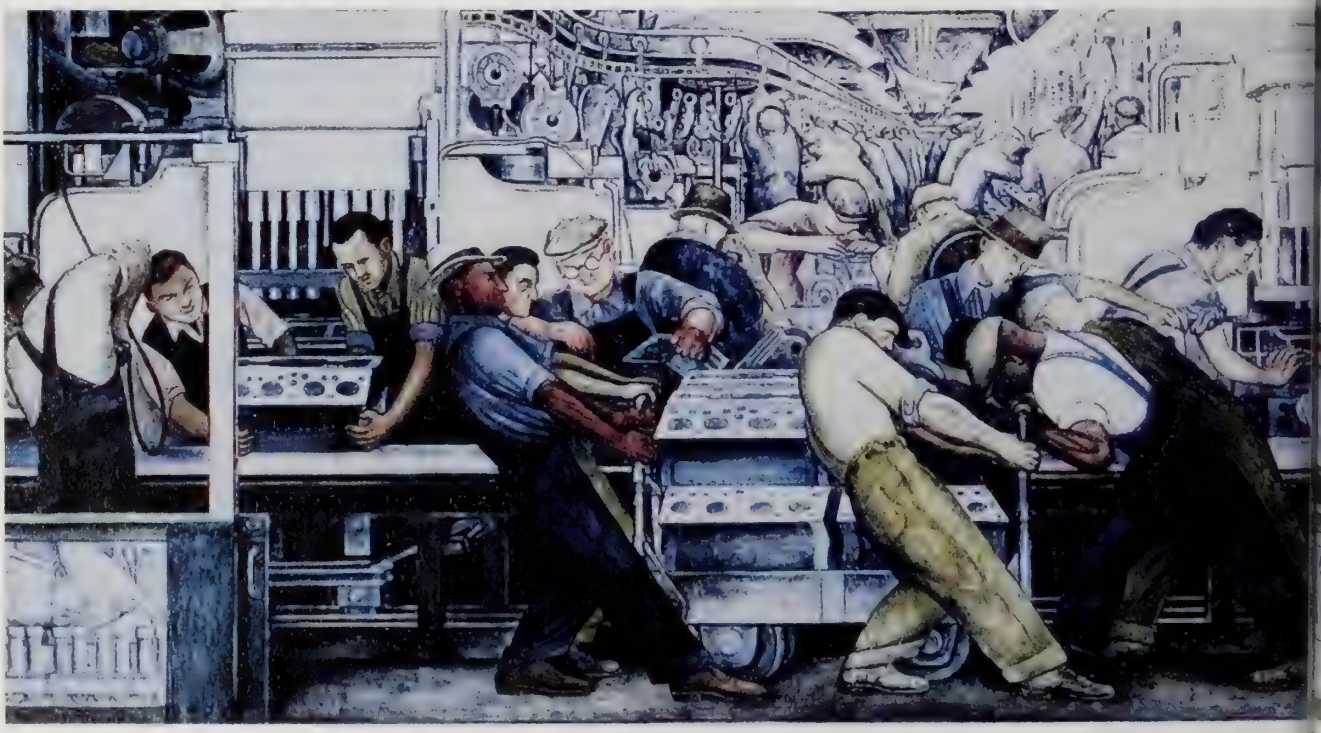

PHOTO COMPOSITE BY DONNA TEREK (MURAL BY DIEGO RIVERA © DETROIT INSTITUTE OF THE ARTS)

commerce expert at Mercer Management Consulting Inc.: "Detroit will be where the rubber hits the road on the Information Highway, a real acid test for the potential of e-business."

Nasser's vision is a sweeping one. He picures the day when a buyer hits a button to order a custom-configured Mustang online, transmitting a flood of information directly to the dealer who will deliver it, the finance and insurance units who will underwrite it, the factory that will build it, the suppliers that provide its components, and the Ford designers storming future models. For buyers, it will mean getting just what they ordered delivered right to their doorstep in days.

IN FRONT. Plenty of old-line manufacturers are moving into cyberspace, but none so deeply or so broadly as Ford. Only with the exception of rival General Motors Corp., on such a huge scale. This summer, GM launched e-GM, an initiative to link its suppliers and dealers and to forge Net ties to consumers at their PCs and in cars. GM, however, has not yet announced plans to wire up its entire workforce. Still, the two are miles ahead of the rest of auto-dom, says David Cole, director of the University of Michigan's Office for the Study of Automotive Transportation. "They're just scaring the liver out of everyone else," he says. Who are they? DaimlerChrysler and Toyota Motor Corp. are pursuing online ventures and experiments, but on a much smaller scale. Jürgen Hubbert, a member of DaimlerChrysler's management board, says he's not worried about rushing into grand Internet deals: "Why jump into this sort of business when nobody makes money?" he asks.

So far, Wall Street isn't impressed, either. Despite its bold moves, Ford's stock is down 7.5%, to 46, since its sweeping plan was unveiled on Sept. 15. Analysts wonder if Nasser has bitten off more than he can chew. While tantalized by the potential of e-business, they worry that all the cyberdazzle will distract Ford from its bread-and-butter task of designing and building cars and trucks.

Certainly, there are plenty of risks. Skeptics wonder if consumers really want vehicles loaded with costly gadgetry that may be prone to technical problems and obsolescence. "People want to bring their portable communications devices with them," says DaimlerChrysler Chairman Robert Eaton. "Are we going to embed all those devices in every car? No." And some suppliers fret that the big cost savings Ford says will result from its online bazaar auto-xchange could instead squeeze vendors to the breaking point.

And for all its potential, e-commerce may find itself up against the biggest roadblock of all: a century-old industry with an infrastructure that impedes change. Slick new online ways to sell cars directly to buyers collide with an entrenched dealer base protected by tough state franchise laws. And systems that are capable of building custom cars actually clash with the economics of the high fixed costs that prod plant managers to run factories at full tilt.

Ford's sweeping system, called CustomerConnect, will link buyers and factories with financiers, parts suppliers, and designers

NET SHOCK TROOPS ARE LED BY KELLEY, 39, A FORMER GE APPLIANCE SALES EXEC

It's not just ignorance that has made the Rust Belt slow to imitate such tech idols as Dell Computer Corp. Detroit is saddled with a much more complex manufacturing task than that faced by any computer outfit. Starting from scratch allowed Dell to create a state-of-the-art, direct-sales model. Over a 16-year period it has been able to tune its ordering and manufacturing processes—and update them for the Web. That's how it was able to custom assemble more than 25,000 different computer configurations for buyers last year. The company deals with hundreds of suppliers, but about 90% of its parts and components come from two dozen companies. And it works closely with them to make sure the parts are designed for snap-in assembly and for just-in-time delivery to its factories.

But even Dell's level of complexity

Shaking up Ford's stodgy, overly analytical culture will require a massive effort

is mere child's play compared with the challenges in the build-to-order auto business. Cars can contain 10,000 parts and, across Ford's entire line, some 1 million possible variations. Ford's F-150 full-size pickup truck, alone, is offered in well over 1,000 possible combinations of engine, transmission, body style, and color—without counting the truck's optional features.

To pull off the monumental task, Nasser has created a business group called ConsumerConnect that is driving the e-business efforts across company lines. He also went outside the company to find the team he wanted to lead it. Brian P. Kelley, 39, a former General Electric Co. appliance sales boss who was known there for championing customer communications and launching a GE Web site, was named to head ConsumerConnect last September. Since then, the boyish Kelley has recruited dozens of other Net whizzes from the likes of Whirlpool, Booz, Allen & Hamilton, and Procter & Gamble. Says Michelle Guswiler, director of corporate initiatives: "We see ourselves as a kind of Alpha squad, here to lead change and help make the cultural difference required to bring Ford into the 2 century."

One of ConsumerConnect's m promising efforts is auto-xchange, an line trading site where its 30,000 s pliers can be linked to Ford for quic communication, better prices, and fa delivery. Analysts say auto-xchange c save Ford $8 billion in procurem prices, and nearly $1 billion more f reduced overhead, paperwork, and o transaction efficiencies each year. F owns a majority of auto-xchange, v Silicon Valley giants Oracle Corp. Cisco Systems Inc. each having a st

The troika's plans for auto-xcha are much dreamier yet. They hop will become so popular that every in the auto industry will use it to ba for parts and office supplies. Inde Wall Street is expecting that Ford take auto-xchange public by 2001, w it would have estimated revenue more than $500 million.

BIRD'S-EYE VIEW. To make Ford's e-c merce ventures robust, there's a lot must go on under the hood. Orac doing the heavy lifting on the softw and databases needed to swap infor tion and conduct transactions seaml ly. Cisco, which signed on as a part on Feb. 9, will provide much-nee networking expertise. And Micro Corp.'s CarPoint, an auto sales and formation Web site, will help Ford velop a build-to-order service. Inte service provider UUNet, PC ma Hewlett-Packard, and middleman I plePC signed on to put Ford's spraw workforce online, starting in April.

Other tech partners are helping F get closer to its customers. Online p erhouses Yahoo! and Priceline.com, a with Denver-based call-center wi TeleTech, will design systems that liver highly personalized warranty, l repair, and customized services b on more detailed knowledge of dr lifestyles and buying habits. "It c give us a bird's-eye view of what sumers want out of a car before build it," says Ford design chief J M

Meanwhile, ConsumerConnect Ford's Visteon auto-parts unit are te ing up to wire future Fords for e and news, voice-recognition syste and satellite phone services that says Kelley, "turn the family car in Web portal on four wheels." The pa a whole array of new services in a

Ford's Net Strategy: Where the Rubber Meets the Information Highway

Ford has launched an e-business strategy to rewire the auto maker. The ultimate vision: To use the Net to do everything from ordering a car to linking 30,000 suppliers. Here is the game plan:

WHAT	HOW	GOAL
RETAILING	Set up BuyerConnection Web site and joined MSN CarPoint site, where consumers can order custom-assembled cars, track their progress, and apply for financing.	Reduce working capital by shrinking excess inventories and wipe out costly rebates needed to move unwanted cars off dealer lots, thus saving up to $650 per car.
CUSTOMER SERVICE	OwnerConnection Web site lets owners get online help, manage their warranty service, and check on financing.	Improve service with 24-hour access. Gather better data on customer problems. And cut costs with automated help.
SUPPLIERS	Launched auto-exchange Web site for online purchasing and swapping of information between 30,000 suppliers and 6,900 dealers.	Save up to $8.9 billion a year in discounts and reduced transaction costs on parts, raw materials, and supplies. Speed data exchange with partners while collecting up to $3 billion a year in exchange fees.
MARKETING	Teaming up with Yahoo!, TeleTech, CarPoint, iVillage, and bolt.com to monitor the interests and buying patterns of Web-surfing customers.	Improve factory efficiency by anticipating customer demand. Funnel data on customer preferences to car designers.
DIGITAL DASHBOARD	Equip new cars with Web access, satellite phone services, and e-mail capabilities.	Make Ford the carmaker for an Internet generation. Collect millions of dollars in fee-based services.
FINANCING	Shift more of the activities of Ford Credit to the Net for online financing and collections.	Cut service costs by 15% to 20%, while boosting revenues by reaching new customers.
WIRED WORKERS	Offering all 350,000 employees a computer, printer, and Net access for $5 a month.	Makes the workforce Web-savvy so it will quickly adopt the Internet initiatives, while enabling the CEO to send weekly e-mail to employees.

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ketplace where basic car prices are declining. Better yet, Web services and phones can be sold on a subscription basis, generating monthly fees that keep cash flowing into Ford's coffers for the life of the car.

Given the risks, why does Nasser chance it—especially since Ford is already the most profitable player in the global auto industry? The Net offers a chance to reinvent manufacturing. Forget marginal efficiency improvements. At stake here is the holy grail of car-building: Changing from the century-old "push" model to a streamlined "pull" system would save auto makers billions of dollars. Traditionally, an auto plant cranks at full capacity—building a predetermined mix of cars—and ships them to dealers who then rely on strong-arm tactics or fat rebates to move the ones customers don't want.

PINPOINT TAILORING. In a pull model, customers decide what they want built. That could shorten the current 64-day average time from customer order to delivery, freeing a good chunk of the $60 billion now tied up in U.S. completed-vehicle inventories, say Ernst & Young auto consultant Lee A. Sage.

To do this, carmakers would need to deliver those cars swiftly. And they would need to tailor vehicles and pricing with pinpoint accuracy, or high-overhead factories would sit idle. Kelley says Ford hopes to deliver its first high-volume built-to-order vehicles within two years. The company would probably first offer certain popular combinations for quick delivery, taking more time for unusual configurations. Ford hopes to see the results in its bottom line within five years. By then, Kelley says, Ford's Net initiatives could save the company billions in waste.

Reinventing manufacturing while juggling high-tech alliances may be a Herculean task, but Nasser figures he has no choice. Still, Nasser is determined to forge ahead. "We're going to turn the old ways on their ears," he says. "It might not happen right away, but change is inevitable." Judging by Ford's progress since last June, Nasser intends to make sure the company wastes no time making it happen.

By Kathleen Kerwin in Detroit and Marcia Stepanek in New York, with David Welch in Detroit

BusinessWeek ONLINE

For a profile of Ford's Brian Kelley, see the Movers & Shakers section at ebiz.businessweek.com

FEAR AND LOATHING IN THE SHOWROOM

Fort Worth auto dealer Cliff Johnson says he's pretty sure that the Internet won't put him out of business anytime soon, but he's wary of e-commerce anyway. Johnson, like many car dealers across the country, doesn't want auto makers and dot-coms getting in between him and his customers. "The Net is making everyone fight for what they perceive as a customer," Johnson says. "And that's a problem."

JOHNSON SEES A WEB FIGHT BREWING FOR CONTROL OF THE CUSTOMER

And not just for Johnson. As auto makers push forward with plans to use the Net to sell more cars, build them more cheaply, and deliver them faster to consumers, traditional dealerships are feeling the heat. Auto makers' motivation to put the squeeze on them is strong: Dealer overhead adds up to $2,000 to a car's price—after it leaves the factory—and adds weeks to order-to-delivery times.

STEALING. Costly, 80-day inventories of cars on dealer lots is also what General Motors Corp. CEO Jack Smith calls "a huge amount of waste...and the Internet can help us cut that." Smith and others also want their companies to use the Net to get closer to customers rather than remaining one step removed, as they are now.

For now, though, getting rid of costly middlemen isn't an option. So far, state franchise laws and political clout in statehouses across the nation have protected dealers from any head-on digital encroachments. The fiercely protective Texas Auto Dealers Assn., for example, was able to win passage of state laws last fall, thwarting efforts by Ford and GM t sell late-model used cars to customers directly, via the Internet.

But auto makers are finding othe ways to get cozier with customers. New dealer-rating systems are bein rolled out to reward only those deal ers who become more Net-friendly. DaimlerChrysler Corp.'s Five Star dealership program, for example, on funnels sales leads from the compan Web site to those dealers who meet toughened new stan dards for service, fac ities, and Internet savvy—about half of the company's 4,400 dealers. General Motors sends leads fro its GM BuyPower We site to only 75% of i dealers, including those that answer N queries from customers within 24 hours.

Failure to comply carries a high sticke price: Slick new e-bi partnerships with In ternet service provi ers give auto manuf turers a way to byp dealers who refuse. "The manufacturer could steal the lead and steal the cu tomer and give it to whoever they want," says Philadelphia car dealer Geno Barbera.

That's why savvy auto dealers a warming up to the Web. Today, 65 of the nation's 22,600 auto dealerships have at least one dedicated I ternet salesperson, 61% have a We site, and 40% participate in online buying services, according to Forrester Research Inc. "There are some dealers who see opportunity the Net and some who just want i to go away," says Maryann Keller, president of Net company Priceline.com's auto division. The l ter, she says, "will go away."

Cliff Johnson, for one, will keep working the Net so that nobody comes between him and his customers.

By David Welch in Det

No wonder it's the dental plan choice of thousands of companies.

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COMMENTARY

By Jennifer Reingold

AN OPTIONS PLAN YOUR CEO HATES

In 1998, Black & Decker Corp. CEO Nolan D. Archibald took home $36.6 million, $31.9 million of which came from the exercise of 1 million stock options he had been granted over the past nine years. The payout, while not quite massive enough to make BUSINESS WEEK's list of the top 20 best-paid executives for that year, was nothing to sneeze at. So what did Archibald do to deserve such a huge haul? Nothing earth-shaking. From the time of Archibald's two grants to the time he exercised them, Black & Decker's total shareholder return trailed that of the Standard & Poor's 500-stock index, rising at a 15% average annualized rate, compared with 19% for the S&P. If Archibald had been forced to beat the market in order to cash in, his options would have been worth zilch.

In today's options-obsessed corporate climate, it doesn't take much for executives to rake in the millions. With seven-figure grants now commonplace, big bucks go to anyone who can get his stock to inch above the exercise price. Indeed, Alfred Rappaport, professor emeritus at Northwestern University's Kellogg Graduate School of Management, points out that total return to shareholders was positive for each of the 100 largest U.S. companies between 1987 and 1997.

NO COASTING. Many cynical pay watchers say that's just the way it is. If executives are taking home boatloads of cash simply because of a rising market and because boards are willing to dole out options by the bucketful, well, so be it. But that complacency could change if the market's gains continue to narrow. As of Feb. 15, 74 of the 88 industry groups in the S&P 500 had negative returns for 2000. As a new round of shocking pay stories from this proxy season hits the presses, outrage could climb.

If that happens, it may focus attention on a controversial alternative to the standard options package. By using indexed stock options, which have no value unless the company's stock outperforms a peer group or a market index, companies can still ensure huge paydays for the true executive superheros. Unlike the current system, however, indexed options also make sure that executives who are just floating their yachts on a rising tide get little to show for it. "Indexed options hold the executive to a higher standard," says Robin A. Ferracone, chairman of pay consultant SCA Consulting, which performe an analysis for BUSINESS WEEK corre lating the pay of several executives with their company's total return an that of the S&P 500. Had SCA used a peer group index, Archibald and the other executives might have fared somewhat differently.

Indexed stock options put an element of risk into the reward—and few companies have tried them yet

Despite the support of such heavy weights as Federal Reserve Chairman Alan Greenspan and a growing clamor from a few institutional investors, indexed stock options remai very unpopular. Executives hate them because they inject more risk into th current windfall setu Employers shun them because unlike traditional o tions, they require companie to take an accounting charg against earnings. Only one major company Level 3 Commu nications Inc., a Broomfield (Colo based telecommuni cations-infrastructur outfit, currently uses them. "Most executives like it the way it is," says Ir M. Millstein, senior partner at law firm Weil, Gotshal & Manges and a governance expert. "Maybe when t market goes the other way, this wil catch on."

How, exactly, do indexed options work? Simply put, they reward rel tive rather than absolute performance. Unlike premium-priced options, a more popular technique in which options are set at a higher le el than the current price, indexed o tions have no value unless the unde lying stock does better than a pres index. In a rising market, the bar i a high one. But in a declining market, an executive at a company wit a falling stock price can still cash i as long as the decline is less steep than that of his peers.

The difference in payout under the two types of options can be dr

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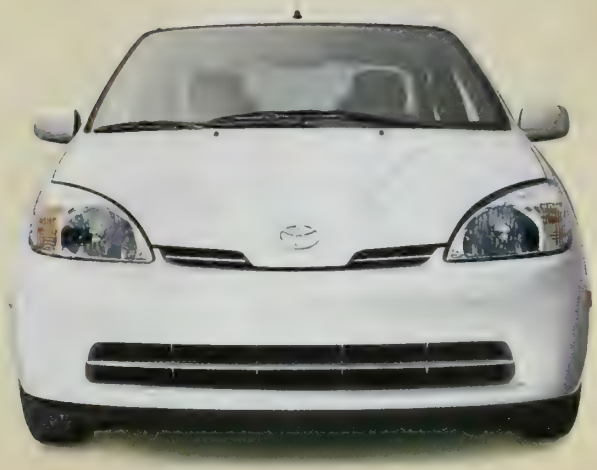

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matic. Take the case of a hypothetical 1,000-share option grant at $10 per share that's tied to the performance of the S&P 500. If the company's stock rose by 20%, to $12, while the market rose 40%, the options would have no immediate value, since the company had underperformed. With a standard, "plain-vanilla" option, that grant would have paid $2,000. But if the overall market fell 30% while the stock dropped just 10%, to $9, that indexed grant would be worth $2,000—the difference between the index and the company performance. If the stock rose in a declining market, the payout would be yet higher.

FEW SUPPORTERS. One drawback of indexed options is that they don't pay as much as standard options when managers do outperform. If the company stock rose to $23 while the index rose to just $15, the options would be worth $8,000—compared to $13,000 with the plain-vanilla options. To make up for that shortfall, the number of indexed options granted would have to be roughly doubled, says Russell H. Miller, partner at SCA. With "grossed-up" options, that top performer would have earned $16,000 instead of $8,000.

Discussing mere thousands, however, has little real-world relevance these days. That's why BUSINESS WEEK worked with SCA to show how indexed options would affect the pay of the top dogs. Using data from BUSINESS WEEK's 1999 report on executive compensation (Apr. 19, 1999) and SEC filings, SCA analyzed the pay of a group of highly paid CEOs from the BUSINESS WEEK report. It measured how they would have done had they been required to beat the S&P 500 over the period from when their option packages were granted until they were exercised. SCA also ran a model demonstrating what "grossed-up" indexed options would have been worth.

The results show what true pay for performance should look like (table). Black & Decker's Archibald would have had to rely on the rest of his pay package (a measly $4.5 million) with options indexed to the S&P although he might have done better had the analysis measured his performance against a peer group. America Online Inc.'s Stephen M. Case should love the idea: He would have earned $176.5 million, up from $158.1 million, with grossed-up indexed options, since his stock crushed the S&P, rising 112% to the index's 23% over the grant period. "For an aggressive performer," says Ferracone, indexed options "could be very attractive."

Then there's Walt Disney Co.'s Michael D. Eisner, who collected $569.8 million in fiscal 1998 from exercising a breathtaking 22 million shares granted over 9 years. Had those options been indexed, he would have earned "just" $257.5 million, an amount that still would have broken all pay records at the time. With grossed-up indexed option grants, he would have made $502.1 million, a

INDEXED OPTIONS BOOST PAY FOR TOP PERFORMERS AND PUNISH THE LAGGARDS

CEO/COMPANY	1998 PAY* (MILLIONS) ACTUAL OPTIONS PAY	WITH INDEXED OPTIONS	WITH INDEXED OPTIONS BASED ON A LARGER GRANT†	TOTAL RETURN‡	TOTAL RETURN S&P 5
1 EISNER/DISNEY	$569.8	$257.5	$502.1	22%	18%
2 KARMAZIN/CBS	195.9	195.8	332.9	53%	19%
3 CASE/AOL	158.1	153.5	176.5	112%	23%
4 WEILL/CITIGROUP	156.6	73.3	113.6	57%	32%
5 SILVERMAN/CENDANT	61.1	57.6	72.0	56%	17%
6 WELCH/GE	46.5	23.6	69.6	31%	21%
7 WHITMAN/EBAY	42.7	42.7	44.8	NA**	NA
8 KOZLOWSKI/TYCO	41.4	27.0	66.1	87%	30%
9 BONSIGNORE/HONEYWELL	3.6	0.6	1.3	25%	23%
10 ARCHIBALD/BLACK & DECKER	31.9	0.0	0.0	15%	19%
11 WARNER/J.P. MORGAN	5.1	0.0	0.0	22%	22%

*Compensation from option exercises only, not salary, bonus, other long-term pay. **eBay went public in September 1998 †Accounts for volatility and dividend yield. ‡From date of grant to date exercise. Pre-IPO performance not included. S&P returns correlated to company's fiscal year. DATA: SCA CONSULTING, BUSINESS WEEK 49TH ANNUAL EXECUTIVE PAY SCORE

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decrease from his actual haul, in part because he just barely outperformed the S&P—22% to 18% over the period. Overall, SCA says that 80% of the 20 best-paid CEOs in 1998 would have done better with grossed-up indexed options.

Although indexed options provide all the right incentives, they have few supporters in the mainstream corporate world, in part because they might expose some poor performers but also because they have a slew of their own problems. Start with the strangest one, an accounting anomaly that requires the value of indexed options to be calculated on a quarterly basis and charged to earnings. The Financial Accounting Standards Board (FASB) allows traditional options to avoid any charge to earnings—a free ride that has contributed mightily to the popularity of options over cash. Why the difference? Because the exercise price of indexed options fluctuates depending on the value of the index it's tied to. The FASB has ruled that indexed options must be charged to earnings every quarter so that investors can see the current option-related liabilities. Level 3 Communications' 1999 income statement reflects $111 million in expenses from its Outperform Stock Option Plan. Level 3 is currently in a quiet period and wouldn't comment on the plan.

So far, Level 3 has few imitators, even though its stock has soared 212% since it started handing out indexed options in April, 1998. The accounting charge is the biggest reason indexed options haven't caught on, though proponents argue that analysts could easily see through the charges, just as they've come to accept other oddities in a company's financials. "I think Wall Street would accept that those accounting charges were just paper charges," says Barry Bingham, director of executive compensation at Monsanto Co. Still, while Bingham finds indexed options "intriguing," Monsanto has so far experimented instead with premium priced option plans, where options are set above the current stock price but don't require relative outperformance—and carry no accounting charges.

If the market takes a definite turn for the worse, look for indexed options to gain favor

Dilution, or the reduction in value per share from the issuance of more shares, is another drawback. Already the flood of traditional stock options has created a disturbing level of dilution. According to pay consultant Pearl Meyer & Partners Inc., the number of shares available for compensation programs as a percentage of shares outstanding was 13.7% in 1998 and rising. That would climb even higher with indexed options if they required bigger grants. Experts say it would be hard to get around the problem simply by rejiggering the exercise price to increase the

yout for spectacular performance. at could run the risk of turning incentive into a simple cash nus instead of an option.

While there's hardly a groundswell support for indexed options yet, ere is a buzz around the issue that sure to intensify if the market con- ues to narrow. Last year, share- lder resolutions calling for indexed performance-based options were filed at four companies, including Chubb, a longtime stock laggard, Gannett, and J.C. Penney. Sponsored by pension funds, including those of the AFL-CIO and the Communications Workers of America, the resolutions gained the support of proxy adviser Institutional Shareholder Services. "What we want to see is that they're grading themselves against a curve," says Patrick S. McGurn, director of corporate programs at Institutional Shareholder Services. The Chubb proposal received 33% of the vote, "a huge number for a first-time proposal," says McGurn. Now the AFL-CIO and two New York City pension funds may soon put forth similar proposals at other companies.

Still, it may take a falling market for indexed options to catch on. "What's going to trigger the interest here is when a very broad cross section of companies starts to see either declining stock prices or flat stock prices," says Rappaport. If the market falls, traditional options will have no value at all. Companies will either have to return to cash-based pay or try wooing execs with indexed options, which could still pay off if the underlying stock falls less than the market. In fact, falling stocks could be just the thing to get widespread agreement from executives that the market's overall trends don't always reflect their company's performance. Until that point, the pay wagons are sure to keep on rolling for executives, regardless of how well they do.

Reingold covers management and executive pay for BUSINESS WEEK.

OPTIONS WITH A STING

eavyweights such as Fed Chairman Alan Greenspan support indexed options, but most companies and executives don't. The debate:

OS

he big money goes only to ıose who outperform their eers or a stock index.

ı a down market, executives an reap gains even if their ompany's stock falls, as long s the losses are less than ıose in its benchmark.

oor-performing executives will el financial pressure to im- rove their results—or leave.

CONS

- Accounting rules require companies using indexed options to take a hit to earnings. Standard options don't require charges.
- For executives to accept the greater risk of indexed options, companies may have to give out bigger grants, which means greater dilution.
- Companies say it will hurt their ability to attract talent.

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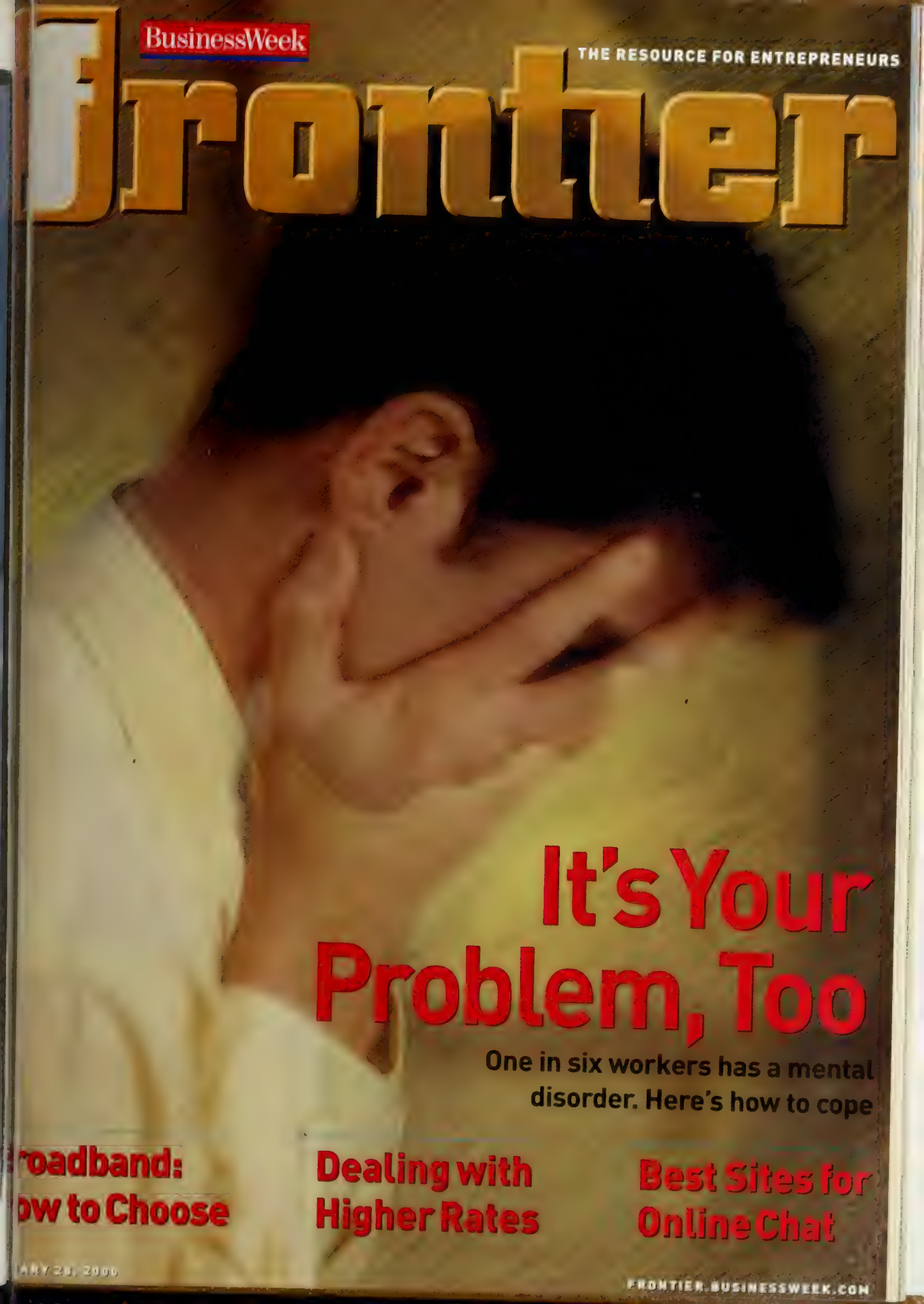

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(QUOTES WE'LL NEVER HEAR #84)

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The founder of 1-800-GOT JUNK? figured the market for dumping that moldy old couch—or unsold fish—was ripe

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IN BOX

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Scamming the Globe

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SO THEY SAY

"Cancer doesn't frighten me. Bad drivers, random bullets frighten me—not cancer."

—JANE MOBLEY, 52, who revamped her entire outlook on life and doing business after she became seriously ill (page F.44).

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Small Virtues

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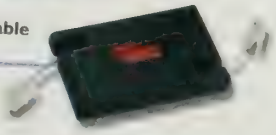

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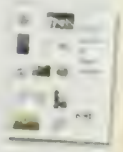

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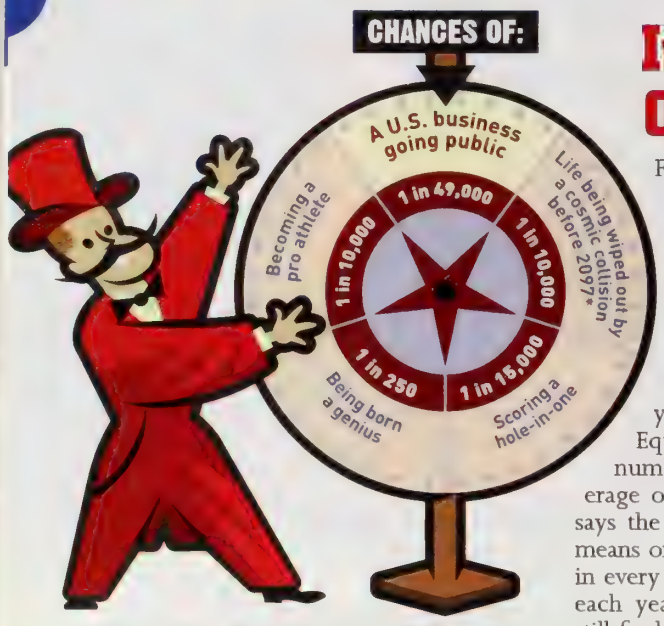

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Initial Public Optimism

FROM THE DON'T BELIEVE the Hype Dept.: Consider Sage Software's recent random survey of 200 small-business owners. Fifteen percent said they expect their company to go public in 2000. Oooo-kay. During the '90s, an average of 465 companies went public each year, according to CommScan EquiDesk. Compare that to the number of business entities—an average of 23 million through the '90s, says the Internal Revenue Service. That means only some 0.002% businesses—1 in every 49,000—actually offered shares each year. Take heart: Those odds are still far better than your chances of winning the Lotto. Back to work, bucko!

Tax Pros' Picks

Who wants to spend hours reading about taxes? Not us. To spare you (and ourselves) those awful hours poking through dozens of new small-biz tax books and Web sites, we solicited reviews from folks who specialize in tax planning for small companies. Burlingame (Calif.) planner Barbara Steinmetz looked at three popular books, while Kent Noard, a San Jose (Calif.) planner, surfed three tax-related Web sites.

Books

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Business Owner's Toolkit Tax Guide 2000, CCH/$17.95	
Discusses capital assets and depreciation. Well-organized glossary.	Only first half of book geared to business owners, mainly sole proprietors.
Business Owner's Tax Savings and Finance Deskbook, Harcourt/$89	
Most sophisticated of group, especially coverage of investments. Handy CD-ROM.	A serious book that makes for some tough slogging.
Tax Savvy for Small Business, Nolo Press/$29.95	
Lightens a dry subject. Best on how to classify independent contractors.	Weak on expenses. Breezy style sometimes obscures important details.

Web sites

ZDNet www.zdnet.com/filters/taxguide	
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IRS www.irs.ustreas.gov/prod/bus_info/sm_bus	
Comprehensive on tax laws. Helpful checklists, and easy access to forms.	Hard to navigate. Generally, have to know exactly what you want to get it.
INTUIT quicken.excite.com/small_business/taxes_and_accounting	
Best for planning and its related Web links. Helpful forms for basic financials.	Active message boards are seductive, but beware heeding strangers' advice.

FRONTIER ONLINE

News and advice from our small-business Web site

The Price of Freedom

For a home business or sole pro prietor, tolerating a few obnox ious ads and nosy surveys is a fai swap for unlimited free Net ac cess. At least that's the contentio of five free Internet servic providers recently sampled ' b *frontier:* NetZero, AltaVista Fre Access, Excite@Home FreeWorl Juno, and WorldSpy. The reality something else. Although all r them promise ease of use, th sites are generally difficult to s up and keep running. In additio customer service is surly or, times, nonexistent.

To make things worse, all th sites but one—WorldSpy—bomba you with distracting ads, which o ten take up as much as 25% screen real estate. That's the ma reason why WorldSpy came out *frontier*'s favorite free ISP, thou even it had less-than-stellar cu tomer service. Our advice: Use free service if it's not essential your business. Otherwise, ante a few extra dollars each month f the added reliability and sanity an ad-free PC.

Aiding the Disabled

The Labor Dept. says there are many as 11 million unemploy disabled adults of working age the U.S. Taxpayers and private p lanthropies spend several hundr billion dollars a year to suppo them. Yet few government pr grams promote self-employme for the disabled.

That's what makes the Lab Dept.'s new Small Business Se Employment Service notable. goals are to make federal sma business programs more accessi to the disabled and to encoura entrepreneurship training as part existing rehabilitation and empl ment programs. For more inf mation, contact Kim Cordingly 800 526-7234.

For the full stories, click Online Extras at **frontier.businessweek.c**

freedom decisiveness faith spirit motivation leadership desire guts determination joy vision nerve tenacity moxie

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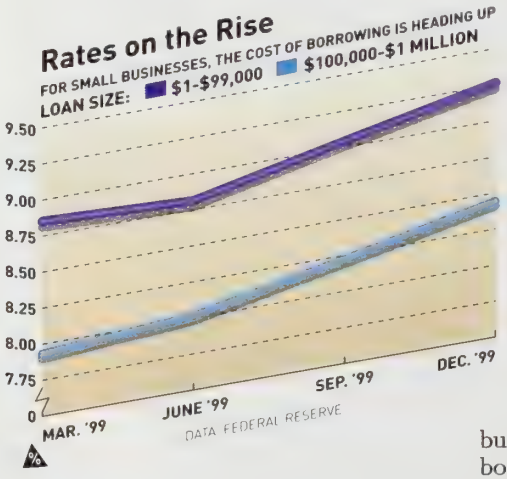
Pricey Loans—With Perks

As rates rise, banks try new services to lure borrowers

JACKING UP PRICES when demand for your product is flat seems like a crazy strategy. Yet that's exactly what's happening with small-business lending.

Interest rates on small commercial loans—those under $1 million—have been rising steadily, reaching an average of 9.26% in the Federal Reserve's fourth-quarter survey (chart). Yet nearly 90% of senior loan officers polled



by the Fed say demand for financing among small companies is flat or falling.

What gives? It's not as if banks have lost interest in entrepreneurs. The Small Business Administration estimates the total value of 1999 small-business loans at $398.5 billion. Nearly 70% of banks have increased their small-business sales forces, says the Consumer Bankers Assn.

The Fed is the culprit. "Interest rates for small businesses are going up because Federal Reserve rates are increasing," says SBA chief economist Robert E. Berney.

As a result, banks are scrambling for other ways to attract your business. More than 90% of banks polled by the CBA are increasing the number of specialty products they offer. These include everything from e-commerce consulting and Internet account access to concierge services (Connecticut-based Liberty Bank offers to make travel arrangements for clients). At the same time, loans are being bundled with other financial services, such as payroll, and health, life, and auto insurance—offered free or at a reduced cost, providing a de facto discount on the loan. Some banks even throw in free personal checking accounts for the business owner.

Anything, of course, except a break on interest rates. If you want that, try a small-business credit card. Several issuers still offer fixed rates below 10%, according to CardWeb.com, which tracks the credit card industry. HSBC offers a teaser rate of 5.9% for six months (it jumps into double digits after that).

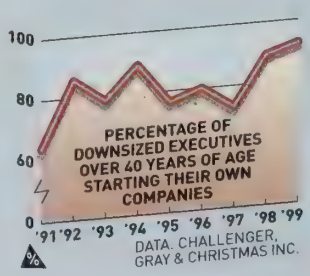
All this comes amid signs that small-business borrowing could be on the rebound. Citing concern about slackening revenue growth, 24% of fast-growing small companies reported taking new bank loans in the fourth quarter of last year, up three percentage points from the third quarter, according to PricewaterhouseCoopers. If these companies are indeed harbingers of rising demand, it might be best to nail down a loan of your own before lenders rethink their generosity.

—ALISON STEIN WELLNER

For more information on interest rates, click Online Extras at **frontier.businessweek.com**

Old Dogs, New Tricks

In today's hot job market, most laid-off workers move on to another company—unless they're managers over 40. According to the *1999 Job Market Index* by Challenger, Gray & Christmas Inc., more than 92% of the firms launched by downsized execs in 1999 were started by people over 40. It's not always a choice. The survey suggests older workers find it's harder to get jobs. The good news? Average length of severance rose to a record 21.8 weeks—providing ample time and money for the downsized to get started.



CURRENTS

C'mon, You Deserve It

Go ahead—give yourself tha raise. Everyone else is. Last year pay hikes for CEOs at small and medium-sized companies range from 10% to 17%, depending on region. (The Northeast was highest, the South lowest.) At businesses with sales of less than $1 million, direct compensation fo the boss averaged $142,000 a companies that didn't offer bonuses, according to Segal Co., which tracks officer compensation. Howard Goldstein, a co-author of th annual study, attributes the bi raises to the overall growth of th economy. In fact, he was somewhat surprised that bonuses—which averaged $88,000—weren' higher.

The study notes packages wer even more generous at the mi nority of companies that wer publicly held. Not only did thos bosses benefit handsomely fro stock options but they als awarded themselves 40% mor in direct compensation than pri vate CEOs. Did they deserve it Maybe not. Segal says the aver age pretax profit at private com panies was double the level public ones.

A Welcome IRS Change

Say goodbye to that file full restaurant receipts. The Interna Revenue Service has raised th level for required documentatio of food, travel, and entertainme expenses from $25 to $75. Tha means you no longer need t save the receipt from every sing business engagement. For ex penses that are under $75, a les formal record, such as an ent on a business calendar, shoul suffice. The new rule, which toc effect on Jan. 26, marks the fir time that the level has bee raised in more than a decad and should be welcome news f owners of small and home-base businesses that do the bulk their deals someplace oth than the office. See you at th steakhouse.

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As co-founder of the company that originally developed and marketed ACT!, Pat Sullivan created the contact management category. Today he's creating a whole new way of selling as President/CEO of SalesLogix Corp., the world's fastest-growing front office and e-commerce software company – and the new publisher of ACT!

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SALES LOGIX®

We the E-People

Joe Mohen brings missionary zeal to the notion of online voting—and sees ways to make a buck at it

DO-GOODER? "We're actually extending the places where people can vote," says Mohen

FORGET THE PIECEMEAL reforms proffered by the Presidential contenders. There's a real political revolution brewing in Arizona's Mar. 11 primary. And in a sign of the times, it's being sparked by a tiny Web startup in Garden City, N.Y., that didn't even exist a year ago: election.com.

"Americans are committed, it's just that voting is cumbersome," bellows Chief Executive Joe Mohen, a 43-year-old former computer-security exec who dabbled in local politics and saw an Internet opportunity in elections. Now, he pushes the once-phantasmic notion of Internet voting—direct from the desktop, far from polling booths—with evangelical flair.

His nonpartisan outfit sets up voter-registration infrastructure for both public and private elections, encrypts voting traffic, and hands officials the tallied results. But nonpartisan doesn't mean nonprofit. Election.com tries to make money either through per-vote fees (sometimes as high as $1.50 for private elections) and flat setup charges, usually in the tens of thousands of dollars. Financial backers include Verisign, the Mountain View (Calif.) Net security firm.

Election.com's first big public test comes next month, when it helps run Arizona's Democratic presidential primary. In 1996, only 12,000 of 800,000 registered voters participated. This time, the party is predicting Net voting will push the total to 50,000. This may be a watershed melding of politics and technology, but others see it as a civic threat. "You strip away the specialness of an election day," says Deborah Phillips, director of the Voting Integrity Project, which has sued in Arizona to thwart online voting. Then there's the racial impact. Compared with white voters, blacks and Hispanics own fewer PCs, which limits Web access.

Mohen, a registered Republican, brushes aside critics, noting plans for 50 public Net polling places across the state. The Web, he argues, will boost voter participation. "We're actually extending the places where people can vote," he says.

Election.com won't disclose revenues, but admits it isn't profitable yet—especially after having expanded from four to 44 employees. It plans for an inevitable initial public offering in early 2001. Yet Mohen claims his visions contain more than money bags. "I believe we can radically improve democracy in this country," he says. Citizens, click your conscience.

—DENNIS BERMAN

For more profiles of hot entrepreneurs, click Online Extras at **frontier.businessweek.com**

INSTANT EXPERT

Direct Mail: Hitting the Target

It doesn't matter how compelling your message is if it reaches the wrong audience—or no one at all. Here's how to get the "A" list.

CASE IN POINT Jeffrey Schneider, sales and marketing vice-president for ASA Environmental Products Inc., a five-employee distributor in Branford, Conn., wasted $700 on his first mailing list. No one responded to his campaign, and many letters bounced back as undeliverable. The problem? The list was only updated annually, and Schneider couldn't ferret out potential customers by specific industries. The next time he found a list that's updated quarterly and asked for a demo of the software first.

BOTTOM LINE Compiled lists come from directories, newspapers, and public records. Pricier response lists only include people or businesses who previously responded to a mailing. Response lists cost about $40 to $75 per thousand names with a 10,000-name minimum. E-mail lists cost more—an average of $200 to $350 per thousand.

RESOURCES

- Learn mailing-list lingo via the American List Counsel's glossary (**www.americanlist.com**). The Direct Marketing Assn. Web site (**www.the-dma.org**) can help you evaluate a list or locate a list broker. Find e-mail lists at **www.copywriter.com/lists**.
- Target Marketing Magazine tracks the direct-mail list market. Free subscription and newsletter information is available at **www.targetonline.com**.
- *Do It Yourself Direct Marketing: Secrets for Small Business*, second edition, by Mark S. Bacon, $16.95 (Wiley, 1997). Provides strategies for evaluating lists and working with a list broker.

—ALISON STEIN WELLNER

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Newsletters are a great way to grab customers' attention—and they don't cost a fortune to produce

WITH HIS SHAGGY blond hair and diamond-studded star earring, you might not think that Bob Dron, a 45-year-old Harley-Davidson dealer in Oakland, Calif., is a publisher. But then you probably haven't read *The Open Road*, the six-page newsletter he has sent customers every quarter since 1997. For about $6,000 an issue, he reaches 7,000 bikers who lap up technical tips, customer profiles, and news about the shop. "It's amazing—people come in and ask to get on our mailing list," he says.

In this age of ad clutter and junk mail, entrepreneurs are finding that one of the easiest ways to connect with customers is to moonlight as a publisher. Newsletters remind clients you're still there, help spark repeat business, and sometimes can be used to attract new clients. "It builds loyalty," says Art Lee-Drewes, a Harley rider and a big fan of Dron's newsletter. "You feel like you belong to something."

Newsletters are certainly catching on. The Standard Periodical Directory counts more than 4,000 of them and estimates the number grows 15% a year. Maybe that's because it's not hard: All you need is a little cash and creativity.

First, obviously, decide what to say. Stick to useful information, as opposed to self-promotion. Can you offer tips unavailable elsewhere? How about new ways to use an old product? As for design, software programs such as Adobe PageMaker provide templates for the do-it-yourselfer. Or you can hire a professional out of the Yellow Pages or off the Web. They'll do the design work, write the copy, and even do the mailing. Expect to spend about $1 per copy, including postage, for a run of several thousand; unit cost drop as the press run increases.

Newsletters also can be publishe on the Web or sent via e-mail, bu beware: Experts say unsolicited e-ma is far less effective than a physical pub lication. In either case, aim for peopl who will find it genuinely useful an interesting. "If you don't send it t the right people, it just gets throw out," says Paul Swift, editor of T *Newsletter about Newsletters*.

A poorly designed newsletter, one rife with errors, is worse than n newsletter. A newsletter should not b seen as a substitute for efforts to ex pand your existing customer bas "You still need to try to get yourse mentioned in real news media," ad vises Laura Ries, of the Roswell (Ga marketing firm Ries & Ries Inc.

A well-executed newsletter can wor wonders. Consider the one Lis Skriloff, owner of New York's Mult cultural Marketing Resources Inc., pu out. Every two months, Skriloff spen several days—and several thousan dollars—producing *Multicultural Marketi News*, a four-page newsletter filled wi tips on reaching minority consumer "It helps position my company as a expert in the field," Skriloff says. Sh also distributes the newsletter at co ferences and mails it to potenti clients—outreach that generates 10 of her business. Perhaps it's time mo entrepreneurs take a page from the a ademics: publish or perish.

—DAVE LINDORF

Want to try an e-mail newsletter Learn how. Click Online Extras a **frontier.businessweek.com**

Smart Answers

Q: Any suggestions for an easy-to-use, yet comprehensive program for developing a business plan?

—L.D., Los Angeles

A: Writing a business plan doesn't have to be difficult. Free business-plan outlines are offered at **office.com**, **bulletproofbizplans.com**, or the Small Business Administration (**www.sba.gov**). Books such as *How to Really Create a Successful Business Plan* by David E. Gumpert (Inc. Publishing, $19.95), feature case studies and other tips. More titles are listed at **www.e-businessplan.com/books.html**.

Business-plan software provides interactive templates and automated financial calculations. But be careful: Such programs can result in a "canned" document, which may not reflect what makes your business special. So start with software, then personalize it. Popular software titles include Business Plan Pro ($89.95 at **businessplanpro.com**), and Automate Your Business Plan, ($80, downloadable at **business-plan.com**

If you're looking for investors, it mig be best to hire a professional busines planning consultant. Get local referra or contact an agency such as Nation Consultant Referrals Inc. at **referrals.co** And shop around. Prices can range fro $2,500 to as high as $30,000

—KAREN E. KLE

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Divided They Stand

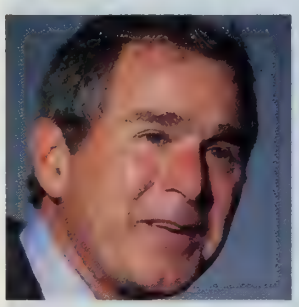
They all want your vote. But what are their views on small-business issues?

OUT ON THE PRESIDENTIAL campaign trail, small business is like motherhood and apple pie: No one is *against* entrepreneurs. Nevertheless, the four major candidates do have some disagreements about what they'd actually do for small companies on key issues, such as health care, taxes, tort reform, and e-commerce. Where do they stand on Medical Savings Accounts, which would offer tax breaks to individuals who set aside money for health care? What about the accrual method of accounting, the little-noticed, recently enacted tax measure that has made it extremely difficult for entrepreneurs to sell their businesses? Here's a scorecard, including each candidate's rating from the National Federation of Independent Business (NFIB), the leading, and generally rightward-leaning, small-business lobby.

—RICHARD DUNHAM

George W. Bush

HEALTH CARE: Favors Medical Savings Accounts. Would allow small businesses to deduct health-insurance costs.



TORT REFORM: Wants limits on damage verdicts against business. Would force plaintiffs to pay costs if they lose after rejecting a "fair settlement."

TAXES: Would eliminate the estate tax. Supports changing federal rules governing the accrual method of accounting.

WEB: Favors a moratorium on taxation and a ban on Net access charges.

IMMIGRATION: Would expand H-1B visas, which enable employers to hire skilled immigrants to fill high-tech jobs.

NFIB RATING: None, no voting record. But received NFIB nod in 1998.

Al Gore

HEALTH CARE: Would offer small firms that insure their employees a 25% tax credit. Would give workers who don't get benefits a 25% refundable credit. Supports insurance purchasing cooperatives.

TORT REFORM: No position yet, but the Clinton Administration resisted tort reform.

TAXES: No position on estate taxes or accrual accounting. Supports tax breaks for worker-retraining and school tuition. Favors new R&D credit.

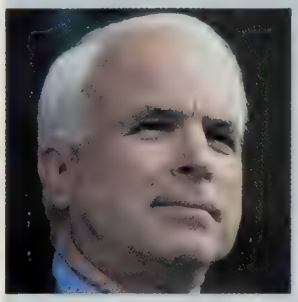
WEB: Supports moratorium on Internet taxation and a "duty-free zone" in cyberspace.

IMMIGRATION: Refuses to commit to expanding the H-1B visa program.

NFIB RATING: 32%, based on 16 years as U.S. Senator and Representative.

John McCain

HEALTH CARE: Favors Medical Savings Accounts and 100% tax deductibility of health-insurance costs for the self-employed.



Supports insurance purchasing cooperatives.

TORT REFORM: Supports federal limits on damage verdicts against small business and stricter time limits on product-liability claims. Would eliminate joint liability for non-economic damages for businesses employing fewer than 25 people.

TAXES: None for estates under $5 million. No position on accrual method.

WEB: Only major candidate to back a permanent ban on Internet taxation.

IMMIGRATION: Supports expansion of H-1B visas.

NFIB RATING: 84% lifetime (100% in 1999).

Bill Bradley

HEALTH CARE: Would make health insurance premiums excludable from income for tax purposes. Seeks to ease insurance burden by encouraging insurance purchasing cooperatives.

TORT REFORM: No position, but consistently opposed caps in product-liability cases as a U.S. Senator.

TAXES: Would reduce business "loopholes" in exchange for lower tax rates. No position on state taxes, accrual accounting method.

WEB: Supports temporary moratorium on Internet taxes.

IMMIGRATION: Would expand H-1B visa program.

NFIB RATING: 26%, based on three Senate terms from New Jersey.

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Can We Talk?

Online bulletin boards promise lively talk and peer advice. Occasionally, they deliver

FOR ENTREPRENEURS IN SEARCH of a helping hand, it's supposed to be a cinch. Just click on to a Web site, post a question, and presto: a quick answer from a fellow business owner who has dealt with precisely the same issue. Problem solved, right?

Yeah, right. Anyone who has spent time searching for answers on the myriad online bulletin boards, e-mail lists, and message forums for entrepreneurs knows the real score. On small-business forums across the Web, it's not uncommon to encounter unanswered postings from as far back as 1997 collecting cobwebs in cyberspace. Sure, an answer is out there somewhere. But you need the sleuthing skills of Philip Marlowe and the patience of Job to find it.

To find help, you need the sleuthing skills of Philip Marlowe and the patience of Job

Just ask Ryan Johnston. The owner of Bay Provisioners, a travel company in Daphne, Ala., Johnston was seeking help choosing an online shopping-cart system for his Web site. Last August, he posted a query on a small-business forum at entreworld.org, the Web site of the Kauffman Center for Entrepreneurial Leadership. Six months later? Just one response—and not from a colleague offering assistance, but a consultant looking for a sale. "I'm not too impressed," Johnston says.

Dearth of Users. Part of the problem is that the number of entrepreneurs using the Internet has yet to reach critical mass. In a recent survey of small companies by the Gallup Organization, 20% of those online said they send no business e-mail at all on a typical day; a further 20% transmit just one message. More than 75% of those surveyed send five or fewer messages each day.

It's a similar story at the more than two dozen Web-based small-business centers that sponsor many of the online discussion forums. Cahners In-Stat Group in Scottsdale, Ariz., recently found that only 3 million small-busi-

RANDOM ACCESS

iTool Belt

If you use a Mac, you've had to get by without much of the software enjoyed by Windows users. But here's something the PC types might envy. Apple has just unveiled "iTools" (itools.apple.com), a suite of free Internet tools. Among them are e-mail, Web hosting, and most important, the iDisk—20 megabytes of space on Apple's server farm where you can stash or share files. Free storage space on the Net is nothing new. But with iDisk, once you log in, an icon for the disk pops up on your Mac's screen, just like a hard-drive icon. (You'll need OS9.) To put a file there you simply drag and copy. That makes backups simple. It's also easy for a Mac-based small business to share spreadsheets, memos, even video presentations with traveling sales staff or telecommuters. And the iDisk is accessible via any Internet connection, anywhere. The only catch? You've got to be using a Mac.

—ANTHONY PAONIT

E-mail E-liminator

It's a dangerous scenario. Employees blabs sensitive information over e-mail, and before long, it has circled the world thrice over. The folks at San Francisco's Disappearing Inc. (**www.disappearing.com**) think they have a solution. Their e-mail service, scheduled for release in March, automatically destroys messages after a set time, be it one or 90 days.

Disappearing messages are regulated by encryption keys. Every time the message is read, it must first access an encrypted key—a bit of software—on Disappearing's server. When a message expires, the key and the message are destroyed. Poof!

—DENNIS BERMA

Telecommunications can be really confusing. And keeping up with all the change is virtually impossible. But imagine if there was this place where you could request bids and compare providers anonymously. Where you could get unbiased information about rates, plans and services from all the top carriers. And then choose the best option. All online. All free. That would clear things up considerably.

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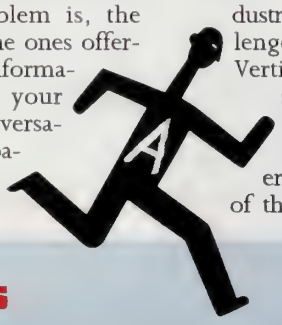
ness users—less than 10% of the total with Web access—regularly visit such sites. Even fewer frequent the discussion forums.

So should you skip the virtual bulletin boards altogether, and head instead for the actual one at the neighborhood Kinko's? Not necessarily. There's life out there in cyberspace, provided you know where to look.

Sites with moderated forums tend to be more informative—as opposed to the unmonitored free-for-alls for which the Web is so infamous. Yahoo's boards, for instance, get lots of traffic but are clogged by the stream of thinly disguised ads and multilevel marketing schemes. A moderator can keep such elements at bay and can also keep cyberschmoozes from becoming cybersnoozes.

An online moderator can help make sure the cyberschmoozes don't turn into cybersnoozes

As a rule, you want to head where the traffic is. The problem is, the busiest sites tend to be the ones offering the most general information, such as "starting your own business." That conversation may be a little too basic for you. Still, if you are looking for general information—or just inspiration and war stories—consider a site like Inc.com. The clean, neatly organized site sponsored by the small-business magazine features a variety of moderated discussion groups that include advanced topics such as import-export with Asia and personal and professional growth.



Younger entrepreneurs may want to check out ideacafe.com, which is aimed at the Gen-X crowd. With yellow text and graphics on a stylish black background, it offers 19 forums under such headings as "Work-at-home Moms," "Tech Talk," and "Start-up Stew," which draw pretty lively crowds.

Beyond that, it's probably best to stick to sites that focus on your own industry. Katharine Andriotis, a freelance photographer in White Plains, N.Y., recently used a photography message board to line up equipment and services for a rush job in London. Posting her questions on the board, she found the best places in London to rent cameras, buy film, and get film processed, among other things. "I connected very quickly, very easily with some very professional photographers," Andriotis says.

Given the imprecision of most Internet search engines, finding useful industry-specific sites can be a challenge. A good place to start is Verticalnet.com, a five-year-old site that operates 52 different business communities ranging from food-and-beverage to medical supplies. All of the Verticalnet sites have bulletin boards, and although the traffic can be spotty, at least you know that users will be versed in your problems.

In addition to looking for colleagues in your own industry, try searching by subjects that apply to all businesses. For tax help, for instance, try Intuit.com. Thousands of people use the boards every day, with spirited debates over issues such as capital-gains taxes drawing round-the-clock traffic.

Frustrating. Wherever you end up, patience is key. It worked for Rex Hammock. The 45-year-old owner of a Nashville publishing company needed a new computer-projection device to make business presentations but didn't know what model to get or how much to spend. He wasted more than two frustrating weeks surfing countless sites, looking for an answer. Finally he stumbled on to an e-mail subscription list for systems administrators. He posted his question and almost instantly had the advice he needed.

It was a hassle, but Hammock remains a believer. "That's the value of looking for conversations on the Internet," he says. "We need the wisdom that only small-business users who've walked in our shoes can give us." True enough. Just don't be surprised if you wander around in circles for a while before you find it.

—ALAN BREZNICK

Burned out on boards? Try E-mail lists. Click Online Extras at **frontier.businessweek.com**

Talking Points

Small-business discussion forums abound on the Web, but you may feel as if you're talking to yourself. Some samples:

	WHAT IT OFFERS	PROS	CONS	VERDICT
IDEACAFE.COM	19 different "cyber-schmooze" forums aimed at Gen-Xers.	Clever and hip. Lots of action among "schmoozers."	Respondents have more enthusiasm than expertise.	Interesting, great for young entrepreneurs.
INC.COM	Nine discussion groups, each divided into specialized subgroups.	More traffic than most. A wide range of topics. Moderators keep the chats focused.	No industry-specific groups. Little traffic for many subjects.	A good spot for general information.
INTUIT.COM	Dozens of message boards and folders.	Lots of tax-related tips. Many topics heavily trafficked.	Boards have too many ads, too few answers.	Great for tax info but not other topics.
OFFICE.COM	15 message boards, organized by industry and topic.	Knowledgeable moderators keep the discussions focused.	Light traffic.	Nicely executed but needs more visitors.
PRINTNATION.COM	12 message boards, organized by printing-industry topics.	Easy to use. Great info for small printers and publishers.	Light traffic.	Very new, promising.
VERTICALNET.COM	Operates 52 different "business communities."	Remarkably diverse. A good source of industry-specific information.	Light traffic. It could take months before questions get answered—if at all.	Promising, but needs more users to really work.

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It's Your Problem Too

Anxiety, depression, and addiction among your staff can cost you plenty. Here's how to cope

by Joshua Kendall THE MAN WAS LOSING IT, and his boss—call hin "Sam"—was not looking forward to dealing with the situation. Fo years, this employee—let's call him "Jim"—had been a much-trusted su pervisor at the small outfit. Lately, however, he had begun acting bizarrely going off on strange tangents at meetings. Jim's customary competenc had eroded badly, while his output had slowed to a crawl.

"Jim's erratic behavior was having a huge ripple effect," the executive recalls. "It led numerous other employees to become upset and disgruntled." But given Jim's track record and the high cost of replacing him, "termination was unthinkable."

So Sam, who, like Jim, cannot be named to protect the employee's privacy, steeled himself for a showdown. Sam was aware that Jim was having family problems, but he needed to get across to him that he was letting down the rest of the team. "I was really anxious," he says. He bolstered his nerves with the thought that he was doing it for the sake of the company. He walked into Jim's office, closed the door, and told him that he needed to be frank about something. The meeting, which lasted half an hour, started out tensely. But once the ic was broken, both boss and employee felt relieve "I told Jim, 'I know you are going through hell. haven't walked that walk, but you need some help I recommended that he see the EAP [Employee A sistance Program] on company time. I never had t say that his job was on the line. I let him know th I was behind him."

If you doubt there will ever be someone lik Jim on your payroll—and that his problems will a fect the company—you're in denial. The massive r port on mental health issued in December by th U.S. Surgeon General (www.mentalhealth.org) co cluded that 22% of Americans suffer from som form of mental illness "at any given time," definin

the term as "alterations in thinking, mood, or behavior... associated with distress or impaired functioning." And don't think you can just dismiss the problem by firing the employee. That's not an option in today's tight labor market (and because of rules that ban discrimination based on disability).

We're not talking here about employees who turn violent or hear voices. Schizophrenics comprise about 1% of the population, and they're seldom employed. The people a business owner needs to worry about are the Jims—valued workers whose productivity suddenly and mysteriously plummets. From depression to anxiety, from drug abuse to alcohol addiction, common psychiatric disorders take a remarkable, if little-discussed, toll. In lost productivity and absenteeism alone, the cost to business approaches $312 billion annually (table). Often, these costs are racked up in ways an employer might not notice.

THE DREAD FACTOR: Workers who avoid specific situations may have an anxiety disorder, says Ross

Take "Anthony" (who requested we change his name), an ambitious 25-year-old trying to make a career at a Washington talent agency. He had sought a promotion vigorously—and then was seized by a stomach-churning dread at the news he had been made a manager. Now he would have to speak in public. "If I had to address, say, 15 to 20 people, my hands would start shaking," he recalls. "I felt I was outside my body, looking in." Yet there was no avoiding biweekly staff meetings at the 35-employee agency. So first, he "forgot" his notes to avoid a presentation. The next time, he called in sick. Worse still, the effects spread: He became "quiet and standoffish" with clients. He feared it was just a matter of time before people noticed that his performance was slipping.

In Anthony's case, the company got lucky. He figured out on his own that he suffered from an anxiety disorder—an illness that afflicts an astounding 15% of adults—and sought treatment last spring at Washington's Ross Center for Anxiety & Related Disorders Inc. A few months later, he noted proudly, he made an applause-winning presentation to the firm's principals.

GETTING HELP

But what should you do if your employees don't figure it out themselves?

First, watch out for odd patterns of behavior. "Workers who consistently avoid specific situations—say, travel opportunities—or who take a long time to get a job done may be struggling with an anxiety disorder," says Jerilyn Ross, founder of the Ross Center and president of the Anxiety Disorders Assn. of America in Rockville, Md.

Next, you need to confront these employees about their performance. No, you don't have to become an amateur shrink. In fact, experts advise that you stay away from anything personal and focus instead on concrete behavior, such as absenteeism or conflict with co-workers. Then, you can nudge the employee—as Sam did—to get some professional help.

Where? A growing number of small companies

What to Look for in an EAP

Setting up an employee assistance program is fairly simple. You can sign up either with a national company that provides mental-health services (about a half dozen now offer EAPs) or with a local provider specializing in small business. The big ones are likely to be cheaper, their staffs are more highly trained, and they offer sophisticated support services such as round-the-clock hot lines. Local folks, on the other hand, give service that's more personal, and they may know more about regional resources.

How to shop? First, take a look at the mental-health component of your health plan. You may be able to add on EAP services at a reduced rate. If not, you can find EAP providers in your state, using the Web site of the Employee Assistance Professionals Assn. in Arlington, Va. Look in the small-business directory (www.eap-association.com; 703 522-6272).

A key question to ask any provider: What proportion of employees who have access to the program actually use it? The industry standard is about 5% each year. Anything less suggests that the program is ineffective. You should also ask how long it usually takes to get a nonemergency appointment: More than three days is unacceptable. A good EAP should also provide follow-up care for an employee who is referred for mental-health services. Treatment for substance abuse, for example, may take a while, and the EAP should monitor the employee's progress every few months.

There's a side benefit to an EAP, too: The programs turn employees into better-educated consumers of mental-health care. A worker who receives coaching on what to look for in treatment—and on what treatment is needed—is likely to file fewer claims.

nalyze This

ntal illness creates huge costs for siness—and the economy generally.

xiety

Total cost $42.3 billion; 88% of cost per anxious worker is attributable to decreased productivity

pression

Total cost $44 billion; $24.5 billion in absenteeism; $8.5 billion in lost productivity. Depressed workers miss a day-and-a-half to hree days more per month than other workers

bstance Abuse

Total cost $246 billion—$148 billion for alcohol, $98 billion for drugs. Lost productivity accounts for 2/3 of the cost.

JOURNAL OF CLINICAL PSYCHIATRY, 1999 BASED ON 1990 DATA; NATIONAL TUTE OF DRUG ABUSE

turning to EAPs (box). EAPs don't provide long-n treatment, but they do offer a safe environ-nt where an employee can discuss problems h a counselor who then makes a confidential as-sment, and if necessary, gives a referral to a ntal-health professional.

EAPs have long been a mainstay at large corpo-ons, where they're run by the human resources partment (75% of companies with more than 0 employees have them). For a small company, ugh, they were not affordable until outsourcing ated new alternatives. Now, you have several ions, including insurers, big mental-health ins, and local independent providers, whose nthly fees typically range from $2 to $6 per ployee. As a result, 27% of companies with er than 25 employees were offering plans in 97—nearly double the 1994 rate, says the fed-l Substance Abuse & Mental Health Services ministration.

ohn P. Chapo, executive director of the Folsom ldren's Zoo in Lincoln, Neb., has been sold on idea for more than a decade, ever since he ned up with the Lincoln Employee Assistance gram, one of the country's first locally based EAPs ving the small-business market. Chapo pays a annual fee—currently $1,200—and insists the gram has paid for itself many times over by ping good workers who face bad times stay on job and make full recoveries. He recalls one rker who fell apart after a personal crisis. An EAP nselor found he was suffering from clinical de-ssion, a mood disorder that Steven E. Hyman, director of the National Institute of Mental lth, calls an "equal opportunity illness" that hits ghly 7% of adults. Thanks to new drugs and other scientific advances, treatment now is effective (as with anxiety) in about 80% of cases. And it worked with this employee, Chapo says. Six months after the EAP made a referral to a professional counselor, the employee was back to his old self, as productive and upbeat as ever. Crisis resolved.

HEADACHES AND HANGOVERS

While most disorders hit employers equally, drugs and alcohol—often not viewed as mental problems at all—take a bigger toll on smaller companies. In 1997, 9% of workers in companies with less than 25 employees used drugs, compared with 5.8% in companies employing 500 or more, according to the most recent National Household Survey on Drug Abuse. About 6.3 million illicit drug abusers are employed full-time. An additional 6.2 million workers abuse alcohol.

Although a distinct disorder in itself, substance abuse is often nothing more than self-medication for depression, anxiety, or other disorders, experts say. "Only a small minority of addicts are hobos. Most bring their headaches and hangovers to work," says Jim G. Lipari, project officer of the Center for Substance Abuse Prevention's Drug-Free Workplace Helpline. He says small employers, unlike large ones, have been slow to take action. Lipari recommends comprehensive antidrug programs, which include a written policy, a referral mechanism, and drug education for employees. Supervisors should be trained to spot and deal with abusers. Drug-testing, which costs $50 a head, is optional.

Are such efforts worthwhile? Harold C. Green,

ZOO STORY: Chapo says his zoo's Employee Assistance Program keeps troubled workers on the job and helps them recover fully

president of Chamberlain Contractors Inc., in Laurel, Md., thinks so. Back in the mid-1980s, his 65-employee construction and paving outfit became one of the first small businesses to invest in an antidrug program. Green's motive was to stop a rash of accidents that were driving his insurance costs through the roof. Suspecting drug-induced recklessness, he began shelling out about $15,000 a year for employee training to reduce stress and annual physical exams along with random drug testing. As his accident rate fell by 70%, his combined premiums for workman's comp, auto, and general liability declined from $252,000 in 1987, to $120,000 in 1991, to $108,000 this year.

"Even casual drug use is dangerous. Unfortunately, with their focus on production and sales, most entrepreneurs aren't willing to commit to a program," Green says. If employees are caught, Green gives them a chance to get treatment. Over the years, about 95% have complied.

EQUAL OPPORTUNITY ILLNESS: Clinical depression affects about 7% of adults, says National Institute of Mental Health's Hyman

UNFAIR STIGMA

Ironically, just as small companies are signing up for EAPs, the willingness of insurers to spend money on mental health has been declining—even though disorders can be treated more cheaply than ever with new drugs. The result: Employees are getting about half as much insurance coverage as a decade ago. The percentage of total health-care dollars going to mental health fell from 6.1% in 1988, to 3.2% in 1998, says the Hay Group, a benefits consulting firm in Arlington, Va.

In his report, the Surgeon General deplored the trend, blaming cost-cutting by managed-care companies as well as "decades of stigma and discrimination" for the disparity between mental and general health-care coverage. "Unfortunately, it takes a long time to dislodge prejudice and false beliefs," says Paul J. Fink, a past president of the American Psychiatric Assn. If those attitudes are stopping employers from getting their money's worth out of the Anthonys and Jims on their payroll, you've got to wonder just who's acting irrational.

Find out more about dealing with mental disorders among your staff. Click Online Extras at **frontier.businessweek.com**

Getting Help

- **Business and Professional Women/USA** 202-293-1100, ext. 190; www.bpwusa.org .... A prime source on depression for small business owners. Arranges presentations by experts. Kits and brochures also available.
- **Working Partners for an Alcohol and Drug-Free Workplace** 202-219-6001, ext. 137; www.dol.gov/dol/workingpartners.htm .... An office of the U.S. Labor Dept., offers small companies free information about drugs in the workplace.
- **The Workplace Helpline at the Center for Substance Abuse Prevention** 888-WORKPLACE .... Run by the U.S. Dept. of Health and Human Services, provides free technical assistance for drug-prevention programs.
- **National Mental Health Association** 800-433-5959; www.nmha.org .... Web site's Mental Health Jumplist links to dozens of organizations for information about psychiatric disorders.

Looking for Trouble

Has a good employee suddenly gone bad? It could be depression or an anxiety disorder. These illnesses show up in various ways:

- Decreased productivity
- Poor concentration
- Morale problems
- Lethargy
- Frequent accidents or risk-taking
- Frequent tardiness
- Increased absenteeism
- Restlessness; irritability

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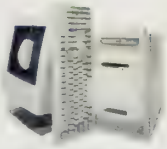

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Pipe Dreams

It's superfast, and it's always on. The broadban revolution will change the way you do business

By Chris Sandlund IMAGINE BEING HOOKED UP to the Internet 24-7 with e-mail and information zipping back and forth without delays. Jus like the big corporations, with their superfast—and superexpensive—T lines. Fat chance that you'd ever get access to such a fat pipe, right Well, stand by. Affordable alternatives to T1 are available for small com panies—or soon will be. Prices are dropping, and the areas covered b dueling technologies are growing daily. Sure, the broadband revolution has focused on consumers so far. But that's not stopping some small businesses from jumping on the broadband wagon.

Take Meg Nigro of Corporate Dynamics Inc., a 13-employee consulting firm that helps clients improve their sales and customer service. Due to problems with both Nigro's server and ISP connection, the firm's e-mail was reaching clients sporadically, sometimes days after it was sent. Now, for $195 a month, the company's network is connected to the Internet by a digital subscriber line (DSL) that's on all the time. Plus, DSL's top speed of 1.5 megabytes per second is 25 times that of a standard modem. "When you're asking for comments and feedback with deadlines, prompt reply becomes critical," says Nigro.

Things are moving faster for Nigro largely because of the Telecommunications Act of 1996, which is making these broadband technologi more widely available. The law obliged phone con panies to open their lines to competitive DSL su pliers, while cable-television companies were free to provide high-speed data access over their wire Meanwhile, newly licensed frequencies let son upstarts provide broadband over the airwaves.

Even with all the advertising hype from the lik of Concentric Network, Infospeed, and Red Conne small companies are just getting their feet wet. the end of 1999, International Data Corp. estimat only 530,000 small businesses—just 12.3% of tho already online—used any form of high-speed I ternet access, and most of those were on antiqua ed ISDN lines. They are now facing a bewildering ray of services and competing claims for today lower-cost broadband options. Here's how yo choices sort out right now and in the not-so-dista future:

SPEED IS OF THE ESSENCE: Meg Nigro's e-mails were reaching her clients days after being sent. Then her consulting company got DSL

DSL: From New York to San Francisco, DSL has become the darling of the big-city digerati. About 48,000 small businesses now have DSL connections, according to IDC. With DSL, you get a choice of providers without having to rewire your office. The competition is leading DSL vendors to differentiate themselves with multiple levels of service and varying fees. You can, for example, get so-called asymmetrical DSL (ADSL)—with higher speeds for downloads than uploads—or you can order symmetrical DSL (SDSL) to send files as fast as you receive them, key if you host your own Web site. Speeds can range from Bell Atlantic Corp.'s entry-level 640-Kbps ADSL service for $49.95 per month to Concentric Network's 1.5-Mbps SDSL service at $499, which includes unlimited network use. For a price, minimum speed can even be guaranteed by most providers.

That's if you can find one. For starters, service is available only within about three miles of a phone company's central office, where the Baby Bells' competitors are allowed to install their equipment. And despite the rapid spread, it's not clear how widely available DSL really is. Dave Burstein, editor of the online industry newsletter, DSL Prime, estimates that 60% of the country's phone lines were capable of providing DSL at the end of 1999. Justin Beech, editor of another newsletter, DSLReports.com, says only 24% of potential DSL subscribers have access in their area.

Promise aside, customer service is still spotty. Horror stories abound on online bulletin boards about missed service appointments, complicated installation routines, and underperforming connections. Market research firm TeleChoice Inc. conducted a study that found 30% to 40% of DSL installations had at least one technical problem.

Cable: After juicing up their networks to support two-way data transfers, such cable companies as Time Warner, Media One, and Tele-Communications Inc. are starting to pitch their service to small business. But proximity is a problem here too: Only 20% of U.S. businesses are in areas that now have access to cable, says market research firm Access Media International. And only a small percentage of those companies are served by systems that have been upgraded to provide Internet access. Price can be another drawback, particularly if you want a hookup to service your local-area network. Although cable companies bill about $39.95 per month for one PC, they'll charge up to $600 per month to connect a company LAN. The extra cost, however, buys guaranteed speed—avoiding the slowdowns consumers experience when traffic increases—and capacity well beyond

Plug and Play Offices

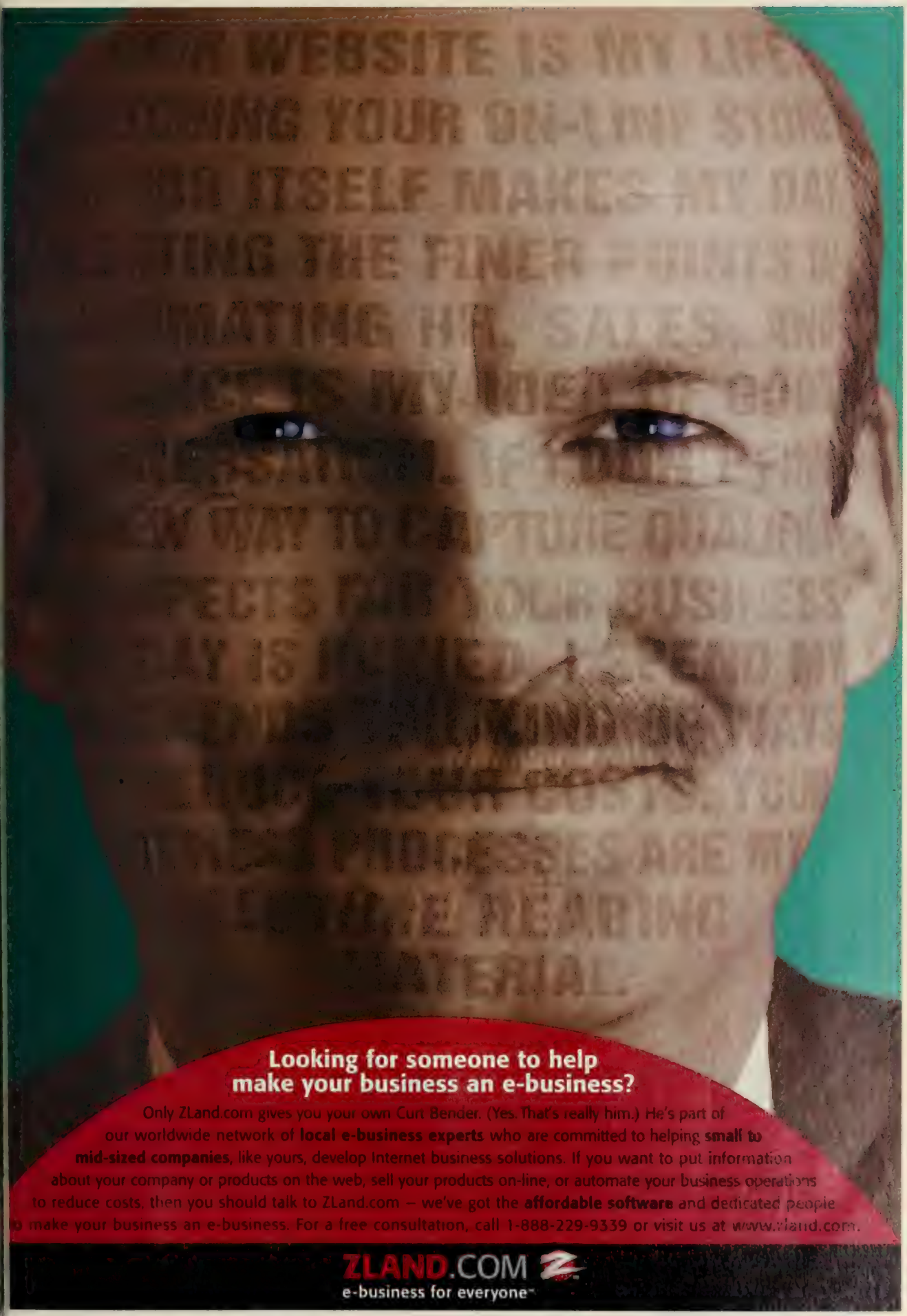
Ed Bogen, president of Bogen PR in New York, was trying to serve high-tech clients with low-tech connections: several individual dial-up America Online Inc. accounts. "It was sort of a nightmare to administer," he says.

BOGEN: In revamped offices with high-speed Internet access

Then, about two years ago, Bogen heard about a newly refurbished building at 11 Broadway, near Wall Street. Not only were the rents comparatively cheap by New York standards, but the building also offered high-speed Internet access to its tenants.

Bogen, like a growing number of entrepreneurs, loved the idea of a fully wired building. "Broadband capability is becoming to a building what elevators and air conditioning have always been," says Gerry Lederer, vice-president of the Building Owners & Managers Association International.

Bogen signed up with Thorn Communications, one of several resident Internet service providers. Thorn dropped an Ethernet cable down a conduit to hook up the company's newly upgraded local-area network with a top-speed connection. For $450 a month, he got a link that usually runs at 2 Mbps—faster than the 1.5 Mbps top speed now available in Manhattan for a digital subscriber line. Now his staff can upload photos quickly to clients and efficiently fetch news from Dow Jones Interactive. Plus, the price includes hosting for two Web sites. And if there's ever a problem, Bogen can just run up to the eighth floor and knock on the door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DSL's top offerings. Which to choose? DSL is more popular right now, but small companies often choose whatever becomes available first, says Kathie Hackler, an analyst at Dataquest.

Prewired buildings: A hot trend in commercial real estate is to offer broadband connections as a building service. Some property managers have brought in companies such as OnSite Access to retrofit their buildings. Others have even brought in ISPs as tenants to anchor their buildings. For Net junkies, it's a great deal. In St. Paul, Minn., for example, ISP Go Fast strung a 10-Mbps Ethernet connection to one of its neighboring tenants, BWBR Architects. Because Ethernet is a relatively simple technology, the wiring was inexpensive, and, as part of the deal, Go Fast sold BWBR 10-Mbps service for about the same price a DSL provider would charge for 1.5 Mbps.

Fixed wireless: This emerging option has the potential to serve businesses that lie beyond the reach of DSL or cable. But it's still hard to find, and prices vary widely. Providers include both ISPs and cable companies, which are partnering with wireless experts, such as High Speed Access Corp. in Denver, Colo. HSA installs a high-frequency antenna at the customer's office, which transmits Internet signals to and from a similar antenna at a cable company. Early adopters are already singing the praises of fixed wireless, which runs at variable speeds as high as 25 Mbps—about 470 times faster than the speed of a standard 56K modem. That's fine with Ray Elsey, owner of Tradeshop Inc. in Portland, Ore., an eight-person jewelry-design company. It means his customers can quickly send huge picture files of designs they want to commission—without bogging down his Net connection. He says

No Burning Need for Speed

You'd think that Laura Glynn, president of a 10-employee multimedia Web development company, would be a demon for speed. Her designers often cruise the competition's Web sites, and visitors to the sites she hosts pound Glynn Interactive Inc.'s servers all day long. How much bandwidth does Glynn really need? A lot less than she originally thought.

GLYNN: Slower—and much cheaper—DSL service suits her and her clients

In April, her Arlington (Va.) company replaced a lease $2,000-per-month T1 phone line with a $399-per-month digital subscriber line from Concentric Network Corp. For such huge savings, she was willing to give up her 1.5 megabits per second (Mbps) connection for a slower, 1.1-Mbps DSL link. Currently, Glynn has about 75 customers, including banks, mortgage companies, law firms, and trade-show companies, and hosts Web sites for about 40 of them. Nobody complained about—or even noticed—the smaller pipe.

A few months later, Concentric offered to upgrade Glynn's DSL to the same 1.5-Mbps speed that she had had with the T1 line. But Glynn now realized that the extra speed was overkill for her company. "We haven't found the need for the faster speed," she says. "What's the benefit of upgrading?"

For Glynn, the real benefit comes from the $1,600 the company saves every month. That is helping to pay for the $35,000 security upgrade she made last summer to protect her sites from hackers—and for a second, backup DSL line. For some small businesses, it seems real fast is fast enough.

The Broad View

All broadband providers offer an always-on connection, but there are important differences among them. Here's a quick comparison of features and costs. To get a feel for the actual speed of each one, we downloaded a graphics-heavy page at 3 p.m. on a weekday. (The benchmark to beat: 35 seconds using a regular 56K phone modem.)

TECHNOLOGY	HOW IT WORKS	TOP SPEED/ TEST RESULT	MONTHLY COST	PROS	CONS
DIGITAL SUBSCRIBER LINES	Standard phone lines	7 Mbps **15 seconds**	$50–$499	Relatively low cost, many competitors	Installation and servi horror stories abounc
CABLE MODEMS	Coaxial cable lines	42 Mbps **8 seconds**	$35–$75 single PC; $200–$600 network	Technology proven in consumer market	Only one cable compa to choose from
WIRED BUILDINGS	In-building ISP runs Ethernet to your office	100 Mbps **7 seconds**	$350–$500	Best price/performance	You lose the service if you move
FIXED WIRELESS	Dish antenna connects to the ISP	25 Mbps **7 seconds**	From $200	Access where cable and DSL don't reach	Bad weather can wre havoc on connection

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well worth the $300-a-month charge. Whichever route you choose, keep security in mind. An always-on connection means that your network is always vulnerable to hackers—and they're interested in small companies, too. Some broadband providers include firewalls as part of the deal. If they don't, consider buying your own security system. Prices start at under $100, but expect to spend more for serious protection which includes live support, a must.

Beyond that, your location often determines what kind of service you get. Until all the options are more widely available, many business owners may find that broadband is still a pipe dream.

Sort out the broadband providers and learn more about security. Click Online Extras at **frontier.businessweek.com**

The IRS by Broadband

A broadband connection has helped one accounting firm manage the maddening swirl of ever-changing IRS rulings. The accountants at Vieira, Skiadas & Co. in Binghamton, N.Y., regularly grab new forms and explanations in the Adobe Acrobat format, which preserves the look of the original document on the IRS Web site. Downloading the files using a 56K modem proved to be a terrible time-waster. Says partner Ernie Skiadas: "We couldn't have people wait."

That's why Skiadas added a cable-modem connection from Time Warner Cable of Binghamton. Wary of escalating costs, the 13-employee firm chose to connect only a single workstation on its LAN—for $75 a month.

RACING FORMS: Skiadas is using a cable-modem hookup—for now

Whenever employees need to download forms, they walk over to that PC, then they save them on a server on the LAN. Skiadas would prefer a LAN-wide connection, but not at the $300 to $400 a month that Time Warner would charge. The cable company sets bulk rates, according to the number of workstations hooked up to the service.

So far, a cable modem is this firm's only viable broadband option. But Skiadas is watching out for the arrival of DSL services to his area. He figures that if he can get comparable speed for less, he'll make the switch. After all, as any accountant knows, what matters is the bottom line.

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A Lending Hand

For more than a decade, microloan schemes have tried to turn poor people into entrepreneurs. Sometimes they succeed

by Joan Oleck THE SCENE WAS PURE SOUTH OF THE BORDER. Mariachis wearing sombreros played *rancheras*, while the seductive aroma of hand-rolled *enchiladas de mole* wafted among the hungry patrons who crowded into Antojitos Mexicanos ("Mexican Cravings") in Brooklyn, N.Y. Ulvaro Alvarado—entrepreneur, immigrant, American success story—was throwing a big, noisy party. The occasion? The January debut of the four

MICROLOAN OVEN: When Ulvada Alvarado opened her fourth restaurant, Antojitos Mexicanos, in Brooklyn, N.Y., she celebrated big-time. The mother of four, who arrived penniless from Mexico in 1979, projects sales of $450,000 this year

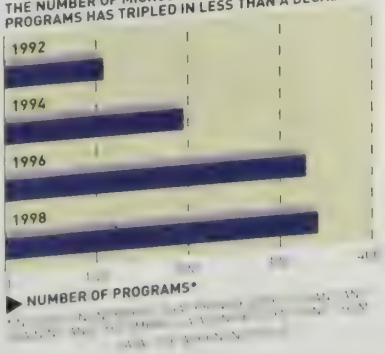
urant she has opened since arriving penniless n Mexico in 1979. The party, though, could as easily have marked the coming-of-age of decade-old microenterprise development move- t that made Alvarado's achievement possible.

straps. Microenterprise programs, run by com- ity-development corporations, nonprofits, and rnment agencies, follow a philosophy pioneered leveloping nations: bootstrap people out of erty through entrepreneurship. In the U.S., that ns making market-rate loans ,500 to $30,000 to people can't qualify through the l channels, while relaxing normal credit standards. re's no need to provide the omary three years of tax re- s, and lenders accept per- l property such as cars for teral. The critical factors to ify? Character—and cash "We evaluate their initia- their knowledge of their ness, the desire and capacity epay," says Terri Ludwig, ident and CEO of Accion New York, a part of the nation's largest microlender, Accion International in Boston.

Alvarado, for instance, first sold her tacos in the streets of Brooklyn's poor Williamsburg neighborhood and later out of a truck trailer in a car lot; her first real restaurant was in a garage. Then, in 1991, Accion New York, which draws on lines of credit from several major banks, began lending money to the 40-year-old single mother of four. To date, she has received six loans totaling $23,000, all of them at 16%. Last year, she had sales of $255,000; next year, she projects $450,000.

The Rising Tide

THE NUMBER OF MICROENTERPRISE DEVELOPMENT PROGRAMS HAS TRIPLED IN LESS THAN A DECADE



Loans are just one aspect of these groups' work. New York's Trickle Up provides actual seed grants of up to $700—no repayment expected—to people who can't even meet microlending criteria. But startup training and technical support is the biggest activity. That's what most of the 57,000 entrepreneurs aided by microlenders got in 1997, the latest year for which data are available from The Aspen Institute in Washington. On the lending side, the

programs provided $33.3 million to 6,153 borrowers, some of whom received very modest sums. Some 589 small loans went to little groups of entrepreneurs who share the risk for default by any of the members. Microlenders typically require a cosigner in the absence of collateral, and will turn bad debts over to a law firm for collection.

The big question for the microenterprise movement is whether it can—or should—continue to grow. "Nobody has come on board in a big way—neither the private-foundation money sources nor the government—to say 'O.K., we're going to fund this for the long haul,'" notes Lisa J. Servon, a Rutgers University professor and author of *Bootstrap Capital: Microenterprises and the American Poor*. Anecdotal evidence does suggest that microlenders can jump-start a struggling small business and change lives, but the record on job creation and defaults is less encouraging. A 1999 Accion International study of 537 clients with two loans apiece found they had created only 193 jobs. And a 1994 Charles Stewart Mott Foundation survey pegged microloan defaults nationwide at a steep 9.5%, compared with that year's 2.22% for standard business loans.

Still, microenterprise development efforts are clearly growing (chart, page F.41), encouraged by a boom economy and a culture that exalts entrepreneurs. "That helps our program and makes more resources available," says Ludwig of Accion New York. Resources include both money and volunteer mentors from established small-businesses. For example, in Brooklyn, Valentin Feliciano, president of Citywide Security Services, has helped Accion get the city's Latino-owned banks to refer rejected loan applicants.

Partners. Banks are on the case, too. Considering microloans' hefty costs—an Aspen study pegged the average at $1.47 per dollar lent—banks rarely pursue these borrowers. But, motivated by good citizenship or by federal requirements for community reinvestment, commercial lenders are partnering with micro agencies. "At the end of the day, many of these groups provide us with access to customers, future potential," says Martin J. Geitz, president of the Fed

How Pocket Change Can Change Lives

CREDIT WHERE CREDIT IS DUE

BRIGHT FUTURE. The Kenefics' first loan was collateralized with their home stereo

About the last thing George and Melinda Kenefic ever expected was to need help from a program for low-income people. When the Albuqerque (N.M.) couple, then in their early 40s, ventured into the clothing business in 1990, they'd grown accustomed to an $80,000 joint income and money in 401(k)s from his job as an architect and hers as a geriatric therapist. Failure wasn't in the script.

Then reality bit. Several boutiques that bought their high-fashion women's clothing featuring Guatemalan fabrics didn't pay. By 1994, they were $60,000 in debt. Yet they still wanted to restock inventory and turn the business, Celebro, into a retail store. Unbankable, they turned to Accion New Mexico in Albuquerque for a $500 microloan collateralized with their home stereo. Over the next five years, six more loans followed in such sums as $1,500 and $3,000. To improve their business skills, they took classes at the Albuquerque Technical & Vocational Institute and through the Small Business Administration's Service Corps of Retired Executives. Soon they had enough cash flow to reestablish credit with banks and suppliers. They continued to borrow—and pay back. Their Accion loans now total $55,000, at rates from 11 to 16%. The latest loan, in September, topped $30,000. Toda the couple have a successful shop, selling natural fiber clothin with retail sales last year of $250,000 plus an additional $20,00 from catalog sales. Soon, they plan to sell on the Web.

The loans have turned out to be good not just for th Kenefics; they've become big customers for a cooperative Latina seamstresses. George, who recently completed an MB plans to "give back" to the microlending community as a me tor—proof that loans can generate dividends as well as intere

SEEDS OF SUCCESS

Laura Hastings was a middle-class Minnesota housewife wi five children when her 16-year marriage collapsed in 199 Overnight, she turned into a welfare mom. Then she learned she had colon cancer.

NATURE AND NURTURE: Hasting sells her wares at farmers' marke

To support the family, Hastings, now 40, worked in factories and did bookkeeping for farmers—which sparked an idea in this farmer's daughter. She headed south to Iowa, where the growing season is longer, and began shopping for a farm—even as she continued chemotherapy. "She's the most entrepreneurial woman I ever met," says Christine Pigsley, of the Iowa

munity Development Corp. Fleet Boston Finan- Corp. has committed $17 million over five years echnical assistance, and it recently joined with an cy in Hartford to provide $2.5 million for mi- ans. A few states are getting in on the act, too. 's Institute for Social and Economic Development s state-backed loan capital to low-income entre- eurs. Pennsylvania has injected $17.8 million in capital and grants for technical assistance into oenterprise agencies.

en though these programs are seeking funds to nd, it's not always easy to attract would-be preneurs. Some shun training and advice pro- s that aren't sensitive to their cultures and grounds, says Rutgers' Servon. So, Accion's vig has hired an ad agency to attract borrowers. he finance side, Ludwig, an ex-Wall Streeter, is ing in several directions. To drive down de- s, she's increasing scrutiny of collateral on one l, and expanding technical assistance on the r, noting research that ties training to the sur- of a business. She has introduced financial innovations, such as bringing in a bank on a larger than-usual micro loan. She's even found a buyer for a portfolio of Accion loans—the Community Rein vestment Fund of Minneapolis, a fund for "socially responsible" investments. The lending may even become a bit less micro, raising limits to $50,000. Entrepreneurs want it, and so do the banks, as a way to shore up the agencies' operating budgets.

But the organizations don't want to lose sight of their founding mission. They're not here to launch the next Amazon.com. Success for microlenders is lifting someone out of poverty. Says Jason J. Friedman, vice-president of Iowa's Institute for Social and Economic Development: "Economic development is not just about high tech and large projects. It's also about beauty salons, alteration shops, and auto repair." That, and a little restaurant in Brooklyn, where you can get a terrific taco.

Want to help a struggling entrepreneur? Find out where to go. Click Online Extras at **frontier.businessweek.com**

en's Enterprise Center. e result: Nature's Table, an herb vegetable farm on 11.5 acres of d land in Williamsburg, Iowa. ings' financing? All microenter- money. For operations, she a $700 grant from Trickle Up in York. The Institute for Social Economic Development in Iowa guaranteed a $10,000 loan at and provided technical support, ing her how to draft a business and use a spreadsheet even as was nurturing her first seedlings matoes, corn, mint, and thyme. lay, 1999, Hastings was selling produce at four farmers' mar- each week. By last September, had sold $10,000 worth of goods netted $2,743.

astings' fortune has changed. has a new husband and has had ecurrence of the cancer. This on she plans to expand her cul- on to 39.5 acres and open a gift -café in a nearby town, where l sell homemade pies and cakes. without the microloan, she says, "I would have still a profit." That's hard to prove. Her accomplishment, by ast, is easy to see.

BUILDING BLOCKS: Charles and Susie Briggins found backing for their family day-care center

A FAMILY BUSINESS GROWS UP

63, Susie and Charles Briggins left segregated Greensboro, in search of new opportunity. "Where the Greyhound bus ed, we got off," recalls Charles. They landed in Brooklyn, where Susie had a brother. Charles found work in a factory, tried and failed at a couple of retail clothing ventures around New York, and by 1969 moved to the affordable suburb of Freeport, Long Island, where stores three and four also failed.

By 1993, Susie had another idea: a family day-care center. After all, the couple had raised five kids of their own—plus grandchildren and foster children. Trouble was, their last store was producing an annual income of only $15,000. Commercial lenders laughed at them, recalls Charles, but they launched the business anyway.

They were already caring for ten children when they heard about the grants program from Trickle Up. In 1995, a $700 award bought the center educational materials and a VCR.

A year later, they got a $10,000 loan at 5% for day-care providers from the Community Development Corp. of Long Island and built an additional room and bathroom. By 1999, they had repaid most of the loan and refinanced for an additional $15,000 at the same rate.

These days, business is good at Susie's Day Care. The Briggins, both 57, grossed about $50,000 last year and netted roughly half of that. They now hope to get a $50,000 CDC loan to move the business outside their home and expand to 50 children. "Every year, we've gotten a little better at it," Charles says. "You have to be efficient and proficient with the resources you have to work with."

An Odd Blessing

Jane Mobley's bout with cancer taught her and her PR firm a lot about business—and the business of living

BY ROBIN D. SCHATZ

WHEN I HEARD about entrepreneur Jane Mobley, 52, and her battle with ovarian cancer, I braced myself to write a real tear-jerker.

Well, you can put away your handkerchief. Mobley is nobody's victim. "Cancer doesn't frighten me," she says. "Bad drivers, random bullets frighten me, not cancer." Instead, she goes about her daily business, heading a $2 million public relations and publishing company in Kansas City, Mo. Cancer is, as she calls it, her "health challenge."

I'll admit I wasn't expecting her sharp sense of humor. (Speaking of her lost eyelashes: "It gives me that Holy Roman Emperor look.") Nor was I prepared to hear that this dreadful disease has actually taught her to run her business better.

When illness struck in 1996, her two-year-old company, Jane Mobley Associates, had eight employees and close to $1 million in billings, putting it among the top 10 PR firms in Kansas City. "I dreamed that I had cancer repeatedly over the course of a month," says Mobley. "I sometimes have fairly knowing dreams, but I tried to resist this one." A sonogram and a CAT scan confirmed her fears; the tumors were fast-growing and advanced.

She broke the news to her staff, and they discussed calmly how business would proceed. Afterwards, Mobley went to the ladies room; all the other women were in there, weeping.

Rainmaker. Massive surgery and six months of aggressive chemotherapy followed. Her billable hours plummeted, and new business slowed, as she had always been the firm's rainmaker.

Fortunately, Mobley soon heeded cancer's most valuable management lesson: take help and delegate. A year earlier, she had hired Michael DeMent, a former Hallmark Cards Inc. PR exec, to help her expand the company. During her treatment, DeMent kept the business running, while Mobley kept in touch by e-mail and telephone. (She has since made him a partner.) In her absence, employees made more decisions for themselves. The unexpected result: They flourished. "It was an instant empowerment," she says. "Because they were great people with lots of skills, it worked." Another revelation: Debt isn't always a bad thing. Mobley, who borrowed for the first time to cover the steep drop in cash flow, now realizes self-reliance isn't the only way to finance growth.

NEW PERSPECTIVES: Mobley, in chemo, resolved to stop wasting time on unimportant things

Perhaps cancer's biggest "gift" was the six months of treatment and convalescence she spent pondering what really mattered to her. After the disease unexpectedly went into remission, she resolved to stop wasting time on unimportant things—such as her hair. "I figured out the time I spent on it. Shoot, I could've written a mediocre American novel in that time," says Mobley, a former English professor. As her hair grew back, she took to trimming it an inch long with a beard clipper.

She trimmed away some clients, to shifting her emphasis to consulting fo nonprofits, foundations, and major pub lic-works projects. Now, she ofte teams up with engineering companie and government agencies on the con struction of, say, a new highway, an works to build community support. Sh also tweaked existing client relation ships: Whereas her firm once handle PR for the Major League Baseball Playe Assn., she now helps the athletes run charity for kids. She has also expande her publishing division, Highwater Ed tions, which produces privat edition books for art museum and other clients. Certainly h bout with cancer derailed h company's growth temporaril but it also led her to focus h business more sharply. She e pects to reach $5 million billings in the next few years.

No Poster Girl. Just when yo think Mobley couldn't find a other kind word to say abo cancer, this doting grandmoth tells me it has taught her to va ue a balance between life a work. At her company, nobo misses a school play or com to work if a child is home sic

Unfortunately, Mobley's stru gle with cancer isn't over. "T big shift for me was to admit wasn't going to be the poster g for recovery," she says. Last Jun she had surgery to remove a tiny grow on her liver. More than 100 biops showed the recurrence was contain to that single spot. The chemo contin every Thursday—so far, so good—a she flatly tells her doctors she wants prognosis.

On a recent afternoon, Mobley seem shaken after attending two friends' f nerals in one day. She tells me she w thinking about her own eulogy: would like them to say I made a go business." Many people would say s already has.

Schatz, a small-business editor, can be reached at **robin_schatz@businessweek.com**

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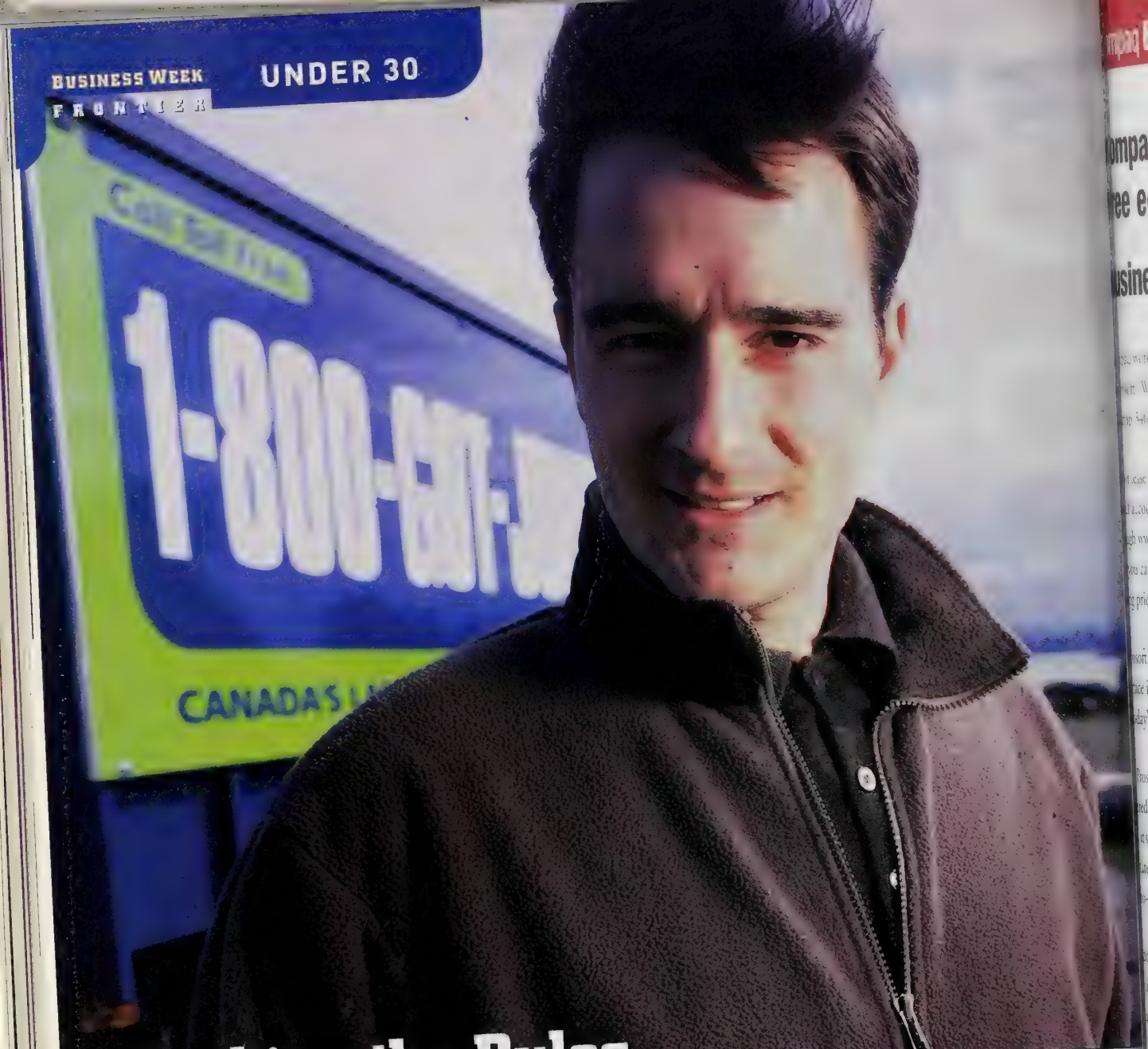

Junking the Rules

Brian Scudamore aims to overhaul the image of the lowly junkman

WANT TO GET RID of that *Welcome Back, Kotter*-era plaid couch moldering in the basement? Typically, you'd call a "man with a van"—one of those sometimes unscrupulous, chronically tardy handymen—to schlep it to the dump.

Brian Scudamore is the man with a plan to do it differently. He's the 29-year-old founder of 1-800-GOT-JUNK?, a Vancouver (B.C.) company that's professionalizing the low-glam world of one-time junk removal. It's a ripe market, says Scudamore. Large trash haulers, such as Waste Management, won't pick up a stray couch or a small pile of drywall. Instead, the work is usually handled by an odd-job man with a pickup truck, who, as Scudamore says, "doesn't usually have any standards of customer service."

In contrast, Scudamore's operation exudes corporate-style standardization. Its $40,000 Ford trucks are radio-dispatched and work on a schedule. Rates are fixed—expect to pay $50 to ditch that couch at a landfill—and employees dress in snazzy blue polo shirts. Last year, Scudamore's 25-employee outfit billed $1.5 million, hauling away every thing from spent refrigerators to 18,000 pounds of canne sardines. Some 200 callers reach GOT JUNK? each wee many of them, no doubt, lured by the catchy 1-800 number itself inspired by the ubiquitous "Got Milk?" campaign.

"Nobody is creating a brand in this business," explain Scudamore, who left college 10 years ago to start the con pany. "We want to be one of the next Office Depots of th world." The quest starts this summer when the compa opens five new franchises throughout Canada and the U. Scudamore hopes to have 100 in North America by 200 each going for $20,000 and an ongoing 8% royalty. F Scudamore, the company's growth has been sweet vindic tion. "My Dad used to say, 'You're dropping out of school be a garbage man!'" Seems that trash talk wasn't so dun after all.

—DENNIS BERMA

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TH INTERNET

REE SPEECH ON THE ET? NOT QUITE

panies are waging war on online critics–and winning

ney called it the HAVOC campaign. Organized late last year by a small band of Northwest Airlines flight attendants, the plan was to guerrilla warfare on the until it offered a bet- urgaining agreement. stood for "Having a in Our Contract." a message board by veteran flight lant Kevin M. on his personal site, several mous employees co-workers to sickouts, which itlawed by fed- labor statutes. goal: to force west to cancel able flights during hristmas season. A ut en masse is one he company will be iced we are serious.... not talk about it. JUST DO aid one post.

er a flood of sick calls forced the lation of 317 flights from Dec. 30 h. 2, Northwest Airlines Corp. back. On Jan. 5, it sued the flight ants' union and several others for g an illegal strike and got per- n from a Minneapolis federal to launch an investigation into as behind it. Armed with a court the airline's private investigators b. 3 forced Griffin to turn over mputer so they could copy his drive. They also subpoenaed the ny that hosts Griffin's Web site, venue Inc. in Secaucus, N.J., for iternet addresses of the people osted pro-sickout messages—could ultimately allow the airline k down HAVOC's activists.

Griffin, who wrote several mes- condemning the sickout strategy, west's lawsuit has been a witch While Northwest has investigated stings, Griffin says only about 20 of those advocated bogus sick calls. Because of this broad-brush inquiry, he says, the company has scared away law-abiding employees from discussing the many legitimate subjects that arise on his message board, such as retirement benefits, workplace hazards, and the union's political activities. "Everybody is afraid to write," says Griffin. "Since they brought the suit, the number of postings [on the message board] has dropped from 50 to 100 a day to 10 to 20 a day."

The company says it has only investigated relevant messages and that it has no desire to infringe on free speech—so long as the speakers confine themselves to legal topics. It also insists that it had little choice but to peer into Griffin's hard drive. "These days, documents are electronic. It's not at all uncommon to search computer records," says Northwest spokesman Jon Austin.

The dispute raises tough policy issues—and they are arising all over the Internet. Angry about the flowering of lies, self-serving day-trader rumors, and other types of mischief on Web message boards, Corporate America is cracking down. In recent months, Raytheon, Varian Medical Systems, and more than 100 other companies have sued over statements made anonymously online. Targets include employees and nonemployees alike, and the offending postings are appearing everywhere from tiny sites such as Griffin's to the teeming financial message boards run by Yahoo!, America Online, and Microsoft.

Because most of the cases have been filed over the past six months, few have reached final resolution. Nonetheless, companies have been successful in unmasking their prey, thanks to the digital tracks people leave on the Net. And that has the American Civil Liberties Union (ACLU), the Electronic Privacy Information Center (EPIC), and other rights groups worried. While acknowledging that corporations are entitled to prevent the release of trade secrets or the spread of lies about them, rights groups argue that the crackdown on message boards is going way too far—and that, in some instances, the suits may simply be intended to silence critics. "There's a real need to weed out the legitimate cases from the bogus ones," says EPIC's David L. Sobel. "A

lot of these cases are simply fishing expeditions." (Raytheon and Varian say their suits are legitimate.)

BLINDSIDED. To their frustration, however, Sobel and other rights advocates haven't been able to do much to help people who are the targets of litigation. In a typical scenario, the process begins when a company sees an anonymous posting it doesn't like on an Internet message board and files a lawsuit, usually alleging defamation and a laundry list of other charges. Since it generally doesn't know the identity of the author, the company names "John Doe" as the defendant. In order to find out who John Doe is, attorneys ask a judge for permission to subpoena the host of the message board. Unlike Griffin, most hosts comply with the request without much of a fight. That means that the people who made the anonymous postings usually get identified before they even know they have been sued (table).

GRIFFIN: *With PC files at risk, "everybody is afraid"*

That's what happened to Leslie L. French. In 1998, he left a series of postings on a Yahoo message board savaging the management of ITEX Corp., a publicly held company in Portland, Ore., that runs an online barter exchange. The company filed a John Doe suit in September, 1998, alleging defamation and unlawful trade practices, among other things, and got his Internet protocol address from Yahoo. It then tracked the address back to his local Internet service provider, CompuServe Inc., and filed a second subpoena "for any and all records" related to the person who had anonymously criticized ITEX.

In response to this broad request, CompuServe turned over not only French's name but also his credit-card numbers, the location of his checking account, and a list of some of the books and software he had purchased online. Yet French didn't even discover he had been sued until months later, in July, 1999. "By then, it was too late to do anything about it," such as objecting to the subpoenas, says the Portland resident. "Imagine how it feels when your enemies get ahold of that information." (Now owned by America Online Inc., CompuServe says it no longer gives out this type of information.)

He's far from the only person to be so unpleasantly surprised. While Microsoft Corp. and AOL now notify people when they have been targeted in a John Doe lawsuit, other message-board hosts, including Yahoo, don't. That makes it all but impossible for people like French to protect their anonymity. "Out of the hundreds of suits that have been brought, I can think of only five where the John Doe managed to get a lawyer involved," says Los A geles attorney Megan E. Gr who last year successfully p tected the anonymity of a p son who had attacked F Worth-based physician practi manager ProMedCo. on a hoo message board.

"CHILLING." Yahoo Assist General Counsel Jon Sobel relation to David Sobel) s the company is legally bo to honor court subpoenas. also says the portal's "terms service" section warns c tomers that their anonym may be compromised if t company is served with a s poena. "We try to provide a rum for speech," says So Noting that the company sp sors thousands of mess boards about public compan he says there's no way Ya can tell when these suits legitimate or not."

Because companies are ly to keep catching John D under the current rules, A attorney Chris Hansen people are going to fear sa anything critical about a company line—whether it's factual or not. word is getting out that when anonymously post a message on Internet, your identity may be reve without you knowing about it. T can't help but have a chilling effect, says.

To combat this, the ACLU has amicus briefs and represented de dants in three John Doe cases s December. It's also urging mess board hosts to give anonymous sp ers notice when they are sued. Bu the time being, most John Does still being exposed. So for those think Internet message bo are open, anonymous forums, the sage is: Criticize companies at own risk.

By Mike France in New York, Dan Carney, in Washington

HOW COMPANIES TRACK ANONYMOUS POSTINGS

STEP ONE A company that is attacked on an Internet message board files a suit against a group of unknown "John Does," charging them with, say, defamation, trade-secret theft, or violation of an employment contract.

STEP TWO Because it doesn't know the identity of the John Does, the company asks a judge for a subpoena forcing the host of the message board to release the Internet addresses that are attached to their postings.

STEP THREE The subpoena is presented to the message board's host, often a major portal, such as Yahoo!, AOL, or MSN. They almost always comply, though a few give the John Does enough notice to fight it if they wish.

STEP FOUR Unless Joh Doe gets a lawyer, the company gets Doe's Inte net address within week From there, it's usually just a matter of time un they are able to track d John Doe's real identity.

DATA: BUSINESS WEEK

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AFTER ALL THESE QUARTERS, A NEW BURST OF ENERGY

Profits soared 19% for the year, buoyed by stellar productivity and sizzling consumer spendi

Corporate America is back in the passing lane. Earnings of the 900 companies on BUSINESS WEEK's Corporate Scoreboard zoomed ahead by a remarkable 37% in the fourth quarter and by 19% for the entire year. The 1999 earnings gain for the Scoreboard companies was the largest jump since 1994 and easily bested 1998's slowpoke 2% rise when the economic downturn overseas put the brakes on U.S. profits.

Why the earnings pickup? Technology, capital investments, and a rise in productivity all helped. Unemployment a 30-year low, and, by most measu inflation was still a no-show. Meanw as the U.S. economy cruised al economies around the globe perked Another big push came from consum who converted real wage gains

The Leaders in 1999 Sales and Profits

THE TOP 25 IN SALES

		1999 SALES IN MILLIONS	PERCENT CHANGE FROM 1998	1998 RANK
1	GENERAL MOTORS	$176,558	14%	1
2	EXXON MOBIL	165,464	11	4
3	FORD MOTOR	162,558	13	2
4	WAL-MART STORES	154,404	17	3
5	GENERAL ELECTRIC	111,630	11	5
6	IBM	87,548	7	6
7	CITIGROUP	82,005	7	7
8	PHILIP MORRIS	78,596	6	8
9	AT&T	62,391	17	11
10	BOEING	57,993	3	9
11	BANK OF AMERICA	51,392	1	12
12	SBC COMMUNICATIONS	49,489	7	30
13	HEWLETT-PACKARD	42,370	7	13
14	SEARS, ROEBUCK	41,071	–1	14
15	ENRON	40,112	28	22
16	PROCTER & GAMBLE	39,188	4	15
17	LUCENT TECHNOLOGIES	38,837	18	26
18	COMPAQ COMPUTER	38,525	24	23
19	AIG	37,726	14	25
20	MCI WORLDCOM	37,120	104	72
21	FANNIE MAE	36,969	17	21
22	HOME DEPOT	36,518	27	31
23	MORGAN STANLEY DEAN WITTER	36,044	16	85
24	McKESSON HBOC	35,824	30	36
25	TEXACO	35,698	13	19

THE TOP 25 IN EARNINGS

		1999 SALES IN MILLIONS	PERCENT CHANGE FROM 1998	19 RA
1	GENERAL ELECTRIC	$10,717	15%	2
2	CITIGROUP	9,994	72	7
3	MICROSOFT	8,746	38	4
4	EXXON MOBIL	7,910	-3	3
5	BANK OF AMERICA	7,882	53	1
6	IBM	7,712	22	9
7	PHILIP MORRIS	7,675	43	8
8	INTEL	7,314	21	6
9	FORD MOTOR	7,237	–67	1
10	SBC COMMUNICATIONS	6,573	–15	1
11	MERCK	5,891	12	9
12	GENERAL MOTORS	5,576	83	2
13	AT&T	5,450	4	1
14	CHASE MANHATTAN	5,446	44	1
15	WAL-MART STORES	5,217	25	1
16	AIG	5,055	18	1
17	MORGAN STANLEY DEAN WITTER	4,791	41	2
18	BELL ATLANTIC	4,208	41	2
19	JOHNSON & JOHNSON	4,167	39	2
20	BRISTOL-MYERS SQUIBB	4,167	15	2
21	GTE	4,063	63	3
22	MCI WORLDCOM	4,013	NM	89
23	FANNIE MAE	3,921	14	2
24	WELLS FARGO	3,747	92	3
25	PROCTER & GAMBLE	3,727	–6	1

DATA: COMPUSTAT PROVIDED BY STANDARD & POOR'S INSTITUTIONAL MARKET SERVICES

market profits into a 7% spending se for the year, up from a 6% gain 8.

course, some sectors still strug- Energy prices tripled, dragging irlines such as AMR Corp., whose rnings dropped 41%, to $656 mil- and chemical makers such as t Co., whose profits plummeted st year, to $219 million. The Fed- eserve has jacked up short-term by a full percentage point since mmer. That will put the squeeze nks and capital-intensive indus- Labor costs are rising at employ- ch as McDonald's Corp. And the ter sector suffered a fourth-quar- wdown as companies and individ- ut off purchases until after Y2K.

rall, though, companies are in ear. "This boom in corporate earn- as been the longest, the strongest, ost persistent in corporate histo- ys Bruce Steinberg, chief econo- vith Merrill Lynch & Co. "That ou something has changed." That hing is the U. S. economy, now a l of consistency. Adjusted for in- , the fourth-quarter gross domes- duct grew by 5.8%, which helped onomy post a 4% increase for the ccording to the government's es- . That's down from 4.3% in 1998 still strong for an economic ex- n now entering its 10th year.

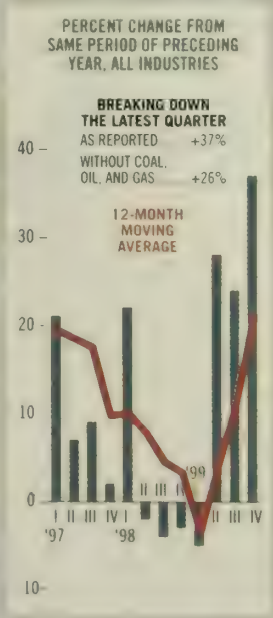
BIG YEAR. Much of that growth eled by brisk spending for com- and other technology, so it's no se that three of the top 10 most ble companies last year were tech Software giant Microsoft Corp. l earnings up 38% for the year, to illion. A rebound in Asia helped. Microsoft reaped $773 million on estments, double from last year, to big stakes in telecommunica- nd Internet stocks. IBM slowed fourth quarter, when earnings %, but the computer giant's '99 tally still climbed 22%, to $7.7 billion. Similarly, Intel Corp. saw fourth-quarter profits climb only 2%, but for the year earnings jumped 21%, to $7.3 billion. With Y2K fears no longer depressing sales, the computer sector is expected to post double-digit earnings gains in 2000.

Profit winner General Electric Corp. scored big by selling services along with its equipment. GE posted a 15% increase last year, to $10.7 billion, making it the first corporation ever to earn more than $10 billion without a one-time gain. CEO John F. Welch Jr. credits much of the rise to the company's capital-services unit, where operating earnings rose 17% last year, to $4.44 billion. With total back orders at a record $32 billion, Welch promises higher profits this year.

Wall Street's record-breaking year buoyed the financial sector. Citigroup began to reap the benefits from its 1998 merger of Citicorp and Travelers Group. Profits climbed 72% at the financial-services conglomerate last year, to nearly $10.0 billion, making it second only to GE. Co-chairman and co-CEO Sanford I. Weill says the strong showing is proof the merger is working. "We're in more countries than any financial-services company, and our product line is more diverse." For its part, Bank of America Corp. pocketed $7.9 billion last year, a 53% gain. Even Bank One Corp., hurt by a big fourth-quarter charge because of credit-card

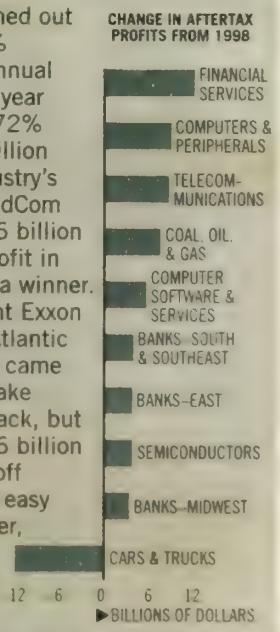
A Spotlight on 1999 Profits

AFTERTAX PROFITS QUARTER BY QUARTER



INDUSTRIES WITH THE BIGGEST DOLLAR CHANGE IN 1999

A robust fourth quarter finished out a strong 1999, with the 19% earnings increase the best annual improvement since 1994. A year after its merger, Citigroup's 72% profit boost provided $4.2 billion of the financial-services industry's $11.9 billion gain. MCI WorldCom came back from 1998's $2.6 billion loss to record a $4 billion profit in 1999 to help make telecom a winner. And while energy heavyweight Exxon Mobil (–3%) faltered a bit, Atlantic Richfield and Amerada Hess came back from 1998 losses to make money in 1999. Autos fell back, but that was due to to Ford's $16 billion gain in 1998, when it spun off Associates First Capital. The easy comparisons are over, however, as profit gains in 2000 will have to be measured against these strong 1999 results.



DATA: COMPUSTAT PROVIDED BY STANDARD & POOR'S INSTITUTIONAL MARKET SERVICES

problems, managed to lift annual profits 12%, to $3.5 billion.

The continued strength in the stock market helped keep consumer confidence strong. Nowhere was that more evident than on the highways, as U. S. sales of cars and light trucks hit a record 16.9 million units. Truck sales, with their fatter margins, were especially strong sellers. Ford Motor Co. hit the jackpot, with sales rising 13% last year, to $162.6 billion. Earnings weighed in at $7.2 billion, a 67% drop from '98, when profits got a $16 billion one-time boost from the spin-off of Ford's Associates First Capital financing unit.

Still, some companies are having trouble adjusting to the New Economy. Allstate Corp., the bellwether insur-

ance company, was stung by direct marketer Geico Corp. as well as some online insurance startups. Allstate's '99 earnings slid 17%, to $2.72 billion for the year. Some companies lost out for their own peculiar reasons. Bled by an aftertax charge of $3.29 billion to settle lawsuits over its diet drugs Redux and Pondimin, pharmaceutical and consumer-products giant American Ho Products Corp. lost $1.23 billion 1999.

But overall, the millennium ended a high note for Corporate Amer While rising energy and labor costs r be worrying the Federal Reserve, su ing productivity gains and free-spend consumers seem to be enough to sv corporate profits. "Employment tru interest rates any day of the week consumer spending," says Rosa Cahn, chief economist at Credit Su First Boston. Companies may have pay a little more to refuel in 2000, the earnings freeway still looks w open ahead.

By Michael Arndt, with Joseph W in Chicago, and bureau reports

A SWEET OFFSHORE BREEZE: OVERSEAS SALES

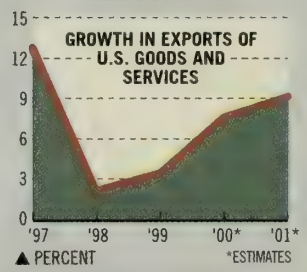
In 1999, investors didn't have to worry all that much about how U.S. companies were faring abroad. With the domestic economy sizzling, the Americans had little trouble piling up profits at home. Anything they earned outside the U.S. was pure gravy.

But that could be about to change. With the Federal Reserve intent on slowing the U.S. economy down with tighter credit, companies could be forced to look to foreign sales to help give oomph to their bottom line. But fortunately for them—and for their investors—the rebound overseas is stronger than expected. "The world economy [is] exceeding all forecasts for growth, be it in Asia, Latin America, Africa, the former Soviet Union, or in Eastern Europe," outgoing International Monetary Fund Managing Director Michel Camdessus said during a Feb. 8 press conference.

NET POWER. In awe of U.S. economic success in the 1990s, countries from Japan to Brazil are emulating what America did right—deregulating their markets and promoting information technology and the spread of the Internet. That plays right into U. S. companies' strengths and is especially good news for computer, software, and financial-services outfits. Economist Allen L. Sinai of Boston-based consultants Primark Decision Economics Inc. reckons that 70% to 80% of companies in the Standard & Poor's 500-stock index have sales that are either directly or indirectly affected by what goes on overseas. "The world pickup is very, very positive for earnings prospects for the S&P," he says.

Take, for example, Caterpillar Inc. Last year was certainly no profit party for the equipment maker. While other big U.S. corporations gorged on booming orders for computers and financial investments, a slump in commodity prices weakened sales of Caterpillar's big mining, farming, and construction equipment. But if there was a ray of hope for the company, it was overseas: Asia sales climbed off the floor as governments began investing heavily once again. And there's more to come. "Profits will improve, with higher sales expected in every region of the world except North America," says Caterpillar Chief Executive Glen A. Barton.

EXPORTS ARE REBOUNDING



DATA: MACROECONOMIC ADVISERS LLC

Even some executives who have seen their companies' earnings get hammered in foreign markets last year are upbeat over renewed signs of life abroad. Although his company's European sales fell 11% in the fourth quarter, Tupperware Corp. Chief Executive Rick Goings said he was "particularly encouraged" by a marked pickup that began in Germany during the closing weeks of 1999.

With overseas economies perking up, spending is spreading well beyond the big government outlays that helped combat the world financial crisis two years ago. Now, consumers and companies are spending, too. Kenneth J. Matheny, senior eco omist at St. Louis-based Macroeconomic Advisers LLC, says that shoul lead to a big upswing in U.S. exports. Matheny expects exports to grow 7.6% in 2000, and 9.4% in 2001 after a mere 3.5% ris last year. Those gains are finally filtering through to the botto line: In the third qua ter, earnings from U.S. overseas operations grew by nearly 25% from a year earl er, according to the Commerce Dept.

U.S. companies with sales overseas could get an added boost to their botton lines as the dollar weakens later th year, says analyst Joseph P. Quinla of securities firm Morgan Stanley Dean Witter. If rising economies overseas and rising interest rates i the U. S. depress the dollar as expected, profits earned abroad woul benefit from a more favorable exchange rate. With the Federal Reserve aiming to slow the American economy, increased orders abroad could be very timely indeed.

By Rich Miller Washington, D

Fourth Quarter & Full Year 1999

CORPORATE SCOREBOARD

lo ary

LE Includes all sales and er perating revenues. For nk includes all operating e es.

OI S: Net income before ra dinary items. For banks, profits are net income after security gains or losses.

MARGINS: Net income from continuing operations before extraordinary items as percent of sales.

RETURN ON COMMON EQUITY: Ratio of net income available for common stockholders (most recent 12 months) to latest available common equity, which includes common stock, capital surplus, and retained earnings.

PRICE-EARNINGS RATIO: Based on Feb. 10, 2000, common-stock price and corporate earnings from continuing operations before extraordinary items for most recent 12-month period.

EARNINGS PER SHARE: For most recent 12-month period. Includes all common-stock equivalents.

O ANY SYMBOL	SALES				PROFITS				MARGINS				
	4TH QUARTER 1999 $ MIL	CHANGE FROM 1998 %	12 MONTHS 1999 $ MIL	CHANGE FROM 1998 %	4TH QUARTER 1999 $ MIL	CHANGE FROM 1998 %	12 MONTHS 1999 $ MIL	CHANGE FROM 1998 %	4TH QUARTER 1999 %	4TH QUARTER 1998 %	RETURN ON COMMON EQUITY 12 MONTHS ENDING 12-31	PRICE-EARNINGS RATIO 2-10	12 MONTHS' EARNINGS PER SHARE
LE IDUSTRY COMPOSITE	1736206.3	13	6470705.4	11	107660.2	37	424430.8	19	6.2	5.1	17.1	29	1.76
ROSPACE & DEFENSE													
iD TRY COMPOSITE	40962.9	–4	154344.4	3	1522.0	2	6059.8	12	3.7	3.5	13.7	15	2.34
BA	15200.0	–11	57993.0	3	662.0	42	2309.0	106	4.4	2.7	20.1	16	2.49
L DYNAMICS GD	2655.0	20	8959.0	21	198.0	24	880.0	49	7.5	7.2	29.1	10	4.36
CH (B.F.) GR	1330.2	–4	5537.5	2	66.3	–25	169.6	–53	5.0	6.3	13.4	15	1.53
ED MARTIN LMT	6982.0	–3	25530.0	–3	293.0	134	737.0	–26	4.2	1.7	12.0	10	1.92
RT NEWS SHIPBUILDING NNS	538.0	0	1863.0	0	24.0	41	97.0	47	4.5	3.2	35.5	10	2.72
ROP GRUMMAN NOC	2506.0	–1	8995.0	1	138.0	NM	483.0	149	5.5	NM	15.4	7	6.93
ION CASTPARTS PCP [9]	404.7	12	1498.9	3	12.7	–51	86.2	–14	3.1	7.1	11.6	7	3.51
ON RTN.B	4830.0	–8	19841.0	2	72.0	–79	457.0	–46	1.5	6.5	4.2	16	1.34
TECHNOLOGIES UTX	6517.0**	9	24127.0	6	56.0	–79	841.0	–27	0.9	4.5	11.5	30	1.65
UTOMOTIVE													
TRY COMPOSITE	119748.1	9	450961.8	13	4023.7	4	17438.0	–39	3.4	3.5	25.9	8	4.84
RS & TRUCKS													
COMPOSITE	95552.3	10	356719.0	13	3262.9	9	13940.6	–46	3.4	3.4	29.5	8	6.84
OTOR F	44418.0	17	162558.0	13	1806.0	73	7237.0	–67	4.1	2.8	26.8	8	5.86
L MOTORS GM	46262.0**	4	176558.0	14	1145.0	–32	5576.0	83	2.5	3.8	33.2	9	8.53
AR INTERNATIONAL NAV [2]	2545.0	14	8582.0	10	132.0	–8	544.0	82	5.2	6.5	42.3	4	8.20
PCAR	2327.3	6	9021.0	14	179.9	57	583.6	40	7.7	5.2	27.7	6	7.41
RTS & EQUIPMENT													
COMPOSITE	19679.5	6	78153.2	13	680.3	–2	3068.5	63	3.5	3.7	20.7	8	2.36
AN AXLE & MFG. HOLDINGS AXL	735.8	17	2953.1	45	27.5	87	115.6	NM	3.7	2.3	43.8	7	2.34
NDUSTRIES ARV	778.4	13	3100.5	24	20.7	1	91.6	17	2.7	3.0	15.4	5	3.74
/ ALV	1026.0	6	3812.2	9	61.4	7	199.9	6	6.0	5.9	10.4	14	1.95
VARNER AUTOMOTIVE BWA	676.8	38	2458.6	34	36.4	14	132.3	40	5.4	6.5	13.0	7	5.07
CN	3243.0**	7	13159.0	6	0.0	NM	513.0	4	0.0	4.5	17.4	8	3.08
AUTOMOTIVE SYSTEMS DPH	7250.0	–7	29192.0	3	269.0	–10	1083.0	147	3.7	3.8	33.8	9	1.95
T DIESEL DDC	593.8	6	2358.7	5	12.0	17	49.2	76	2.0	1.8	12.5	9	1.99
UTOMOTIVE SYSTEMS DRRA	669.6	178	2200.4	198	10.8	5	49.8	87	1.6	4.3	11.5	5	2.94
L-MOGUL FMO	1574.3	7	6487.5	45	63.3	75	282.1	207	4.0	2.4	13.6	4	3.63
IP GY [1]	255.5	–12	1071.0	2	11.1	–21	46.3	22	4.3	4.8	57.8	[illegible]	1.09
LEMMERZ INTERNATIONAL HAZ [11]	598.5	35	2162.9	34	19.9	1	59.6	11	3.3	4.4	26.8	11	1.86
V INDUSTRIES IV [10]	500.2	11	1965.7	2	23.3	NM	88.0	71	4.7	NM	18.5	12	1.64
R AUTOMOTIVE MRA [3]	1136.0	20	4642.0	20	97.0	143	251.0	62	8.5	4.2	72.1	4	3.68
MFG. MODI [8]	283.5	0	1135.1	5	16.2	–7	68.2	–9	5.7	6.1	14.3	11	2.29
H NATIONAL WNC	358.0	10	1454.6	13	11.8	434	38.8	67	3.3	0.7	10.0	9	1.59
E & RUBBER													
COMPOSITE	4516.3	14	16089.6	3	80.4	–55	428.9	–53	1.8	4.5	8.4	12	1.68
BDG	263.2	–4	1012.7	–4	8.1	–56	52.3	–12	3.1	6.7	11.0	10	2.40
TIRE & RUBBER CTB	701.2	41	2196.3	17	31.5	17	135.5	7	4.5	7.7	13.9	7	1.79
AR TIRE & RUBBER GT	3551.9	11	12880.6	2	40.8	–66	241.1	66	1.1	3.8	6.6	15	[illegible]

[illegible] quarter ended Nov. 30. [2] Fourth quarter ended Dec. 31. [3] First quarter and most recent 12 months ended Dec. 31. [4] First quarter and most recent 12 months ended Nov. 30. [5] First quarter and most recent 12 months ended Oct. 31. [6] Second quarter and most recent 12 months ended Dec. 31. [7] Second quarter and most recent 12 months ended Nov. 30. [8] Second quarter and most recent 12 months ended Oct. 31. [9] Third quarter and most recent 12 months ended Dec. 31. [10] Third quarter and most recent 12 months ended Nov. 30. [11] Third quarter and most recent 12 months ended Oct. 31. [illegible] Sales include excise taxes. ** Sales include other income. *** Sales include excise taxes and other income. * Revenues from major subsidiaries are included in consolidated sales. [illegible] not 12 months, not necessarily for end of most recent fiscal year. They include all common-stock equivalents of exchangeable shares. NM = not meaningful. NA = not available.

DATA: COMPUSTAT PROVIDED BY STANDARD & POOR'S [illegible] MARKET [illegible]

CORPORATE SCOREBOARD

COMPANY SYMBOL	SALES 4TH QUARTER 1999 $ MIL	SALES CHANGE FROM 1998 %	SALES 12 MONTHS 1999 $ MIL	SALES CHANGE FROM 1998 %	PROFITS 4TH QUARTER 1999 $ MIL	PROFITS CHANGE FROM 1998 %	PROFITS 12 MONTHS 1999 $ MIL	PROFITS CHANGE FROM 1998 %	MARGINS 4TH QUARTER 1999 %	MARGINS 4TH QUARTER 1998 %	RETURN ON COMMON EQUITY 12 MONTHS ENDING 12-31	PRICE-EARNINGS RATIO 2-10
3 BANKS												
INDUSTRY COMPOSITE	85462.4	9	326622.0	6	11670.5	41	49013.9	30	13.7	10.6	24.3	13
(A) BANKS - EAST												
GROUP COMPOSITE	28483.7	9	108427.9	7	3807.6	19	15924.4	31	13.4	12.3	40.7	14
ASSOCIATED BANC-CORP ASBC	257.7	9	980.4	3	44.3	17	164.9	5	17.2	15.9	18.1	11
BANK OF NEW YORK BK	1629.0**	9	6966.0	20	327.0	4	1739.0	46	20.1	20.9	33.8	16
CHASE MANHATTAN CMB	9382.0	12	33710.0	4	1693.0	48	5446.0	44	18.0	13.7	90.9	13
FLEETBOSTON FINANCIAL FBF	5321.0	14	20000.0	13	–34.0	NM	2038.0	–12	NM	13.4	8.5	13
MBNA KRB	1746.5	20	6470.1	25	319.8	34	1024.4	32	18.3	16.3	25.5	18
MELLON FINANCIAL MEL	1441.0**	–6	5986.0	3	240.0	8	989.0	14	16.7	14.4	24.6	17
MORGAN (J.P.) JPM	4543.0**	6	18110.0	–2	509.0	472	2055.0	113	11.2	2.1	18.8	11
PEOPLES HERITAGE FINANCIAL GRP. PHBK	274.5	14	1037.1	8	45.6	43	142.4	26	16.6	13.3	16.7	10
PNC BANK PNC	1914.0	-7	7666.0	1	304.0	7	1264.0	13	15.9	13.9	21.0	10
STATE STREET STT	1251.0**	12	4749.0	12	249.0	126	619.0	42	19.9	9.8	23.3	21
SUMMIT BANCORP. SUB	724.0	12	2753.3	9	109.9	–6	442.6	–5	15.2	18.1	15.8	11
(B) BANKS - MIDWEST												
GROUP COMPOSITE	25580.6	8	98383.2	5	3429.5	99	15373.9	28	13.4	7.2	17.8	14
BANK ONE ONE	6330.0	-1	25986.0	2	411.0	82	3479.0	12	6.5	3.5	17.4	9
COMERICA CMA	924.7**	13	3389.6	5	175.7	11	672.6	11	19.0	19.3	20.3	10
COMMERCE BANCSHARES CBSH	253.1	3	986.8	5	44.4	10	166.2	11	17.5	16.5	15.5	12
FIFTH THIRD BANCORP FITB	953.7	12	3615.8	8	116.3	–35	668.2	22	12.2	20.8	14.6	28
FIRSTAR FSR	1629.5	1	6424.3	0	268.0	160	875.3	9	16.5	6.4	13.9	26
HUNTINGTON BANCSHARES HBAN	746.3	23	2599.6	7	114.9	268	422.1	40	15.4	5.1	19.5	12
KEYCORP KEY	2159.0	16	7989.0	13	264.0	2	1107.0	11	12.2	14.0	17.3	8
MARSHALL & ILSLEY MI	617.9	9	2342.4	7	90.6	9	354.5	12	14.7	14.7	16.3	17
NATIONAL CITY NCC	2163.5	3	8293.4	3	343.5	18	1405.5	31	15.9	13.9	23.9	9
NORTHERN TRUST NTRS	764.5**	15	2803.8	9	106.0	16	405.0	14	13.9	13.7	19.5	33
OLD KENT FINANCIAL OK	433.0	3	1707.0	3	71.2	62	252.5	12	16.4	10.5	20.6	14
PROVIDENT FINANCIAL GROUP PFGI	254.2	13	944.4	10	39.9	111	146.4	27	15.7	8.4	17.8	10
TCF FINANCIAL TCB	279.2**	4	1070.7	3	45.0	14	166.0	6	16.1	14.8	20.5	10
U.S. BANCORP USB	2251.9	14	8435.4	10	369.0	6	1506.5	13	16.4	17.6	19.7	10
WELLS FARGO WFC	5820.0**	13	21795.0	6	970.0	NM	3747.0	92	16.7	NM	17.0	16
(C) BANKS - SOUTH & SOUTHEAST												
GROUP COMPOSITE	28202.0	8	108278.7	4	3984.8	31	16144.9	31	14.1	11.6	17.7	11
BANK OF AMERICA BAC	13218.0	8	51392.0	1	1902.0	64	7882.0	53	14.4	9.5	17.8	10
BB&T BBT	1026.1	15	3877.1	13	158.8	14	612.8	13	15.5	15.7	19.3	14
FIRST TENNESSEE NATIONAL FTN	578.8**	–7	2342.6	11	71.9	10	255.3	13	12.4	10.6	20.5	13
FIRST UNION FTU	5980.0**	9	22084.0	3	842.0	–2	3223.0	11	14.1	15.6	20.2	9
HIBERNIA HIB	332.2	10	1270.0	9	48.7	2	175.1	–3	14.7	15.9	13.2	9
POPULAR BPOP	587.5**	13	2224.6	14	65.7	5	257.6	11	11.2	12.1	15.8	13
REGIONS FINANCIAL RGBK	897.1	13	3391.8	10	129.1	2	525.4	25	14.4	16.0	17.4	10
SOUTHTRUST SOTR	902.3	17	3350.0	14	115.9	18	443.2	20	12.8	12.7	15.1	10
SUNTRUST BANKS STI	1858.4	–1	7620.2	3	227.1	44	1124.0	16	12.2	8.4	14.3	15
SYNOVUS FINANCIAL SNV	445.1	20	1627.8	18	63.3	13	225.3	15	14.2	15.2	19.0	21
UNION PLANTERS UPC	712.5	–7	2810.6	–3	97.4	253	410.0	82	13.7	3.6	14.8	11
WACHOVIA WB	1664.0	11	6287.8	6	262.9	9	1011.2	16	15.8	16.1	17.9	12
(D) BANKS - WEST & SOUTHWEST												
GROUP COMPOSITE	3196.2	31	11532.3	31	448.7	38	1570.7	31	14.0	13.3	17.2	15
BANCWEST BWE	347.4	23	1333.3	51	48.5	244	172.4	105	14.0	5.0	9.5	11
FIRST SECURITY FSCO	561.2	12	2118.2	12	66.3	–1	273.3	10	11.8	13.4	15.5	17
PACIFIC CENTURY FINANCIAL BOH	327.4	2	1292.1	–1	37.6	7	133.0	24	11.5	10.9	11.0	9
PROVIDIAN FINANCIAL PVN	1233.1	83	4036.8	91	159.4	68	550.3	86	12.9	14.1	41.3	17
UNIONBANCAL UB	727.0	10	2751.9	5	136.9	20	441.7	–5	18.8	17.2	14.8	13
4 CHEMICALS												
INDUSTRY COMPOSITE	30879.5	18	115188.5	10	–1700.3	NM	3908.5	–39	NM	3.0	8.0	42
AIR PRODUCTS & CHEMICALS APD [3]	1264.4	–1	5009.9	1	50.6	–60	374.7	–27	4.0	9.9	12.7	16
CABOT CBT [3]	493.0	21	1780.0	47	38.0	19	103.0	–16	7.7	7.8	14.2	17
CK WITCO CNW	786.5	96	2092.4	16	–76.6	NM	–159.4	NM	NM	20.1	–21.0	NM
CYTEC INDUSTRIES CYT	354.1	0	1412.5	–2	29.9	–7	121.3	–3	8.4	9.1	24.0	9
DOW CHEMICAL DOW	5200.0**	17	18929.0	3	268.0	84	1331.0	2	5.2	3.3	15.9	18
DUPONT DD	7140.0**	17	26918.0	9	–1436.0	NM	219.0	–87	NM	12.8	2.1	NM
EASTMAN CHEMICAL EMN	1255.0**	21	4590.0	2	–52.0	NM	48.0	–81	NM	NM	2.7	64
FERRO FOE	348.7	3	1355.3	0	18.7	9	73.0	5	5.4	5.0	31.9	10
FULLER (H.B.) FULL [1]	357.1	–1	1364.5	1	14.4	60	44.1	176	4.0	2.5	12.1	21
GEON GON	319.2	6	1261.2	–2	13.9	NM	106.2	670	4.4	NM	33.8	6
GEORGIA GULF GGC	284.5	52	857.8	4	20.8	60	43.2	–24	7.3	7.0	75.4	15
GRACE (W.R.) GRA	381.2	2	1471.9	1	48.2	NM	130.2	NM	12.6	NM	92.2	7
GREAT LAKES CHEMICAL GLK	369.9	17	1453.3	4	32.0	NM	140.0	148	8.7	0.0	12.9	13

ORATE SCOREBOARD

ANY SYMBOL	SALES 4TH QUARTER 1999 $ MIL	CHANGE FROM 1998 %	SALES 12 MONTHS 1999 $ MIL	CHANGE FROM 1998 %	PROFITS 4TH QUARTER 1999 $ MIL	CHANGE FROM 1998 %	PROFITS 12 MONTHS 1999 $ MIL	CHANGE FROM 1998 %	MARGINS 4TH QUARTER 1999 %	MARGINS 4TH QUARTER 1998 %	RETURN ON COMMON EQUITY 12 MONTHS ENDING 12/31	PRICE EARNINGS RATIO 2-10	12 MONTHS EARNINGS PER SHARE
(M.A.) MAH	565.3	6	2304.6	1	1.0	-52	35.4	17	0.2	0.4	6.4	14	0.79
ES HPC	827.0	9	3248.0	51	17.0	NM	168.0	NM	2.1	NM	19.6	10	1.62
BAL IGL	520.2	-13	2369.3	-1	-749.8	NM	-611.1	NM	NM	NM	-56.6	NM	-5.33
ATIONAL FLAVORS & FRAGRANCES IFF	336.0	5	1439.5	2	36.6	5	162.0	-21	10.9	11.0	17.5	22	1.53
L LZ	433.0	6	1748.0	[illegible]	33.5	NM	123.0	73	7.7	NM	15.6	12	2.25
LL CHEMICAL LYO †	1008.0	14	3693.0	155	-58.0	NM	-80.0	NM	NM	NM	-7.9	NM	-0.77
NIUM CHEMICALS MCH	404.0	[illegible]	1589.0	-1	-390.0	NM	-326.0	NM	NM	10.2	-32.1	NM	-4.71
NTO MTC	2342.0	35	9146.0	26	46.0	NM	503.0	NM	2.0	NM	9.4	54	0.77
R PX	1203.0	1	4639.0	-4	114.0	7	441.0	[illegible]	9.5	8.9	19.3	14	2.72
HAAS ROH	1678.0**	90	5339.0	44	90.0	20	249.0	-45	5.4	8.5	7.0	31	1.27
AN (A.) SHLM [4]	273.7	6	1000.7	1	11.9	-7	46.9	-11	4.4	5.0	13.3	9	1.49
SOI	736.0	10	2830.0	0	51.0	-7	206.0	-17	6.9	8.2	251.2	7	1.80
CARBIDE UK	1552.0	20	5870.0	4	94.0	40	311.0	-23	6.1	5.2	12.3	23	2.27
SU [6]	447.6	[illegible]	1476.8	6	32.6	2	105.9	-24	7.3	7.6	10.1	3	1.09
ONGLOMERATES													
TRY COMPOSITE	**53444.9**	**15**	**189501.7**	**12**	**3520.3**	**-3**	**13958.4**	**9**	**6.6**	**7.8**	**22.6**	**37**	**2.64**
ENY TECHNOLOGIES ATI	575.4	0	2296.1	-4	13.1	-71	111.0	-28	2.3	7.8	7.8	15	1.16
R INTERNATIONAL AXE	706.0	21	2670.0	14	11.5	259	69.7	56	1.6	0.5	15.3	11	1.83
L ELECTRIC GE	32855.0**	15	111630.0	11	3089.0	16	10717.0	15	9.4	9.3	26.8	42	3.22
URT GENERAL H [2]	683.6**	14	2142.6	15	69.8	29	120.3	37	10.2	9.1	26.0	23	1.67
VELL INTERNATIONAL HON	6159.0	-1	23735.0	1	7.0	-99	1541.0	-19	0.1	9.0	21.4	23	1.90
FICE SOLUTIONS IKN [3]	1332.5	-4	5458.2	-3	-55.6	NM	-50.5	NM	NM	2.1	-3.5	NM	-0.33
L [5]	267.1	7	1164.3	6	24.9	85	62.9	-30	9.3	5.4	8.4	35	0.50
ELMER PKI	427.2	83	1363.1	60	28.9	107	28.4	-64	6.8	6.0	5.5	90	0.61
O AUTOMOTIVE TEN	806.0	5	3279.0	1	-143.0	NM	-63.0	NM	NM	NM	-14.9	NM	-1.87
N TXT	3234.0**	25	11579.0	20	170.0	42	623.0	41	5.3	4.6	14.1	15	4.05
W	4625.3	58	16969.4	43	223.9	91	468.8	-2	4.8	4.0	24.9	11	3.80
DUSTRIES USI [3]	791.0	5	3470.0	9	20.0	-9	152.0	NM	2.5	2.9	16.5	7	1.64
	393.1	2	1581.2	-2	46.4	72	134.8	38	11.8	7.0	18.5	18	1.39
AN WH	589.6	48	2163.7	33	14.5	23	42.9	-31	2.5	3.0	3.6	36	0.35
ONSUMER PRODUCTS													
TRY COMPOSITE	**87237.1**	**5**	**335702.5**	**5**	**5724.8**	**55**	**25177.0**	**14**	**6.6**	**4.4**	**26.6**	**24**	**1.77**
PAREL													
COMPOSITE	**7178.0**	**10**	**28422.8**	**6**	**335.4**	**14**	**1331.3**	**30**	**4.7**	**4.5**	**14.5**	**14**	**1.71**
SHOE BWS [11]	429.1**	4	1576.7	1	14.8	14	34.2	306	3.4	3.1	13.9	6	1.88
APPAREL GROUP JNY	914.5	86	3150.7	87	27.1	-16	188.4	22	3.0	6.5	15.2	14	1.60
OD KWD [8]	633.5	5	2171.4	3	26.1	17	6.6	-88	4.1	3.7	1.4	76	0.21
KE [7]	2059.7	8	8919.9	0	107.5	56	526.5	121	5.2	3.6	16.4	18	1.86
S-VAN HEUSEN PVH [11]	368.0	-2	1301.1	-1	15.3	[illegible]	14.9	NM	4.2	3.7	6.2	12	0.54
ALPH LAUREN RL [9]	510.3	14	1934.4	18	32.3	27	108.3	-15	6.3	5.7	14.4	14	1.10
INTERNATIONAL RBK	622.8	-12	2899.9	-10	-14.7	NM	11.0	-54	NM	NM	2.0	45	0.20
LAND TBL	276.4	5	917.2	6	29.9	44	75.2	27	10.8	7.9	27.6	12	3.39
	1363.7	2	5551.6	1	97.2	-6	366.2	-6	7.1	7.7	16.6	9	2.99
PLIANCES & HOME FURNISHINGS													
COMPOSITE	**15409.0**	**10**	**59639.7**	**10**	**441.7**	**80**	**2083.6**	**26**	**2.9**	**1.7**	**17.2**	**21**	**1.45**
RONG WORLD INDUSTRIES ACK	827.9	0	3443.8	-8	-178.5	NM	14.3	NM	NM	NM	1.6	60	0.36
TH & BEYOND BBBY [10]	486.5	34	1722.7	34	31.7	29	117.0	33	6.5	6.8	23.0	39	0.81
JY BBY [10]	3107.3	25	11637.7	23	78.4	46	293.5	71	2.5	2.1	25.3	39	1.38
' CITY GROUP CC [10]	2495.6	10	10152.6	14	52.3	60	254.4	64	2.1	1.4	13.4	32	1.25
URE BRANDS INTERNATIONAL FBN	521.2	5	2088.1	7	29.2	18	111.9	14	5.6	5.0	23.6	7	2.14
UYS GGUY [3]	262.2	-11	883.6	-5	5.6	240	-35.3	NM	2.1	0.6	-34.5	NM	-2.19
N INTERNATIONAL INDUSTRIES HAR [8]	450.8	16	1604.3	[illegible]	22.3	NM	61.0	736	4.9	NM	13.3	18	3.44
MEYERS HMY [10]	528.9**	-27	2445.3	-10	4.7	-24	-90.2	NM	0.9	0.9	-16.9	NM	-1.50
L INTERNATIONAL KBALB [6]	294.3	5	1134.9	[illegible]	12.2	-18	56.0	4	4.2	5.3	11.8	11	1.37
Y LZB [8]	387.7	16	1393.3	16	23.3	26	77.1	35	6.0	5.5	17.6	[illegible]	1.46
T & PLATT LEG	965.1	15	3779.0	12	74.3	21	290.5	17	7.7	7.3	17.6	12	1.45
'N THINGS LIN	414.3	19	1300.6	22	28.7	26	52.1	37	6.9	6.5	13.6	18	1.27
MYG	1063.0	[illegible]	4323.7	[illegible]	71.5	4	328.5	15	6.7	7.1	76.9	10	3.66
IMPORTS PIR [10]	298.2**	9	1183.0	5	16.2	-15	69.0	-12	5.4	7.0	16.2	13	0.68
SFP [6]	292.8	105	748.2	94	47.6	307	73.5	123	16.2	8.2	52.5	12	4.84
OOL WHR	2689.0	-2	10511.0	2	113.0	36	347.0	12	4.2	3.0	18.6	12	4.56
AS-SONOMA WSM [11]	324.1	34	1288.0	25	9.2	85	63.3	40	2.9	2.1	19.7	30	1.08
VERAGES													
COMPOSITE	**20823.2**	**-1**	**80212.3**	**3**	**741.6**	**-25**	**6435.0**	**-9**	**3.6**	**4.7**	**23.4**	**38**	**1.25**
SER-BUSCH BUD	2715.5	4	11703.7	4	190.6	13	1402.2	14	7.0	6.5	33.8	23	2.94
-FORMAN BF.B [8]	643.0	12	2096.2	23	72.9	[illegible]	208.8	[illegible]	11.3	11.8	21.2	17	3.04
DAIGUA BRANDS CDB [10]	661.5	76	2272.7	72	29.9	48	73.8	23	4.5	5.4	14.8	13	3.99
OLA KO	4931.0	11	19805.0	5	-45.0	NM	2431.0	-31	NM	13.4	25.7	58	0.98

CORPORATE SCOREBOARD

COMPANY SYMBOL	SALES 4TH QUARTER 1999 $ MIL.	SALES CHANGE FROM 1998 %	SALES 12 MONTHS 1999 $ MIL.	SALES CHANGE FROM 1998 %	PROFITS 4TH QUARTER 1999 $ MIL.	PROFITS CHANGE FROM 1998 %	PROFITS 12 MONTHS 1999 $ MIL.	PROFITS CHANGE FROM 1998 %	MARGINS 4TH QUARTER 1999 %	MARGINS 4TH QUARTER 1998 %	RETURN ON COMMON EQUITY 12 MONTHS ENDING 12-31	PRICE-EARNINGS RATIO 2-10	MOST RECENT EARNINGS PER SHARE
COCA-COLA ENTERPRISES CCE	3509.0	8	14406.0	7	-18.0	NM	59.0	-58	NM	NM	1.9	NM	0.
COORS (ADOLPH) RKY	497.2	12	2056.6	[redacted]	12.2	30	92.3	36	2.5	2.1	11.0	20	2.
PEPSI BOTTLING GROUP PBG	2186.0	7	7505.0	7	9.0	NM	118.0	NM	0.4	NM	7.0	24	0.
PEPSICO PEP	5680.0	-21	20367.0	-9	490.0	36	2050.0	3	8.6	5.0	29.8	25	1.
(D) PERSONAL CARE													
GROUP COMPOSITE	**20176.9**	**4**	**73404.2**	**3**	**2087.9**	**-7**	**6879.0**	**0**	**10.3**	**11.6**	**32.3**	**35**	**1.**
AVON PRODUCTS AVP	1566.6	1	5289.1	1	141.7	-4	302.4	12	9.0	9.6	494.1	25	1.
CLOROX CLX [6]	954.0**	1	3988.0	0	76.0	-53	235.0	-37	8.0	17.2	13.7	43	0.
COLGATE-PALMOLIVE CL	2343.9	2	9118.2	2	260.6	11	937.3	10	11.1	10.2	54.6	39	1.
DIAL DL	455.3	4	1721.6	13	30.7	12	116.8	14	6.7	6.2	28.4	13	1.
ESTEE LAUDER EL [6]	1235.1	13	4202.3	10	113.9	17	300.5	16	9.2	8.9	25.4	44	1.
GILLETTE G	3035.0	-4	9897.0	-2	339.0	-22	1260.0	17	11.2	13.7	37.1	32	1.
PROCTER & GAMBLE PG [6]	10587.0	7	39188.0	4	1126.0	-1	3727.0	-6	10.6	11.5	29.0	35	2.
(E) TOBACCO													
GROUP COMPOSITE	**23649.9**	**5**	**94023.5**	**5**	**2118.2**	**NM**	**8448.0**	**55**	**9.0**	**NM**	**34.6**	**6**	**3.**
DIMON DMN [6]	551.8	-7	1617.0	-24	6.5	NM	-13.4	NM	1.2	NM	-3.4	NM	-0.
PHILIP MORRIS MO	19411.0**	5	78596.0	6	1857.0	578	7675.0	43	9.6	1.5	48.3	6	3.
R.J. REYNOLDS TOBACCO HOLDINGS RJR	1976.0	29	7567.0	32	108.0	NM	195.0	NM	5.5	NM	2.7	11	1.
STANDARD COMMERCIAL STW [9]	277.9	3	1087.8	-17	2.5	235	7.6	-58	0.9	0.3	5.0	6	0.
UNIVERSAL UVV [6]	1032.5**	-20	3643.3	-13	26.1	-37	114.4	-18	2.5	3.2	21.4	5	3.
UST UST	400.8	[redacted]	1512.3	6	118.0	11	469.3	3	29.5	28.6	175.3	[redacted]	2.
7 CONTAINERS & PACKAGING													
INDUSTRY COMPOSITE	**12654.1**	**11**	**49876.2**	**12**	**607.5**	**NM**	**1975.0**	**84**	**4.8**	**NM**	**11.9**	**17**	**1.**
(A) GLASS, METAL & PLASTIC													
GROUP COMPOSITE	**4941.0**	**-2**	**21023.8**	**2**	**-0.5**	**NM**	**706.1**	**68**	**NM**	**NM**	**10.5**	**10**	**1.**
AMERICAN NATIONAL CAN GROUP CAN	526.9	-1	2328.1	-5	3.6	-42	97.6	-16	0.7	1.2	9.0	7	1.
BALL BLL	793.3	-6	3584.2	24	19.5	NM	104.2	226	2.5	NM	15.5	10	3.
CROWN CORK & SEAL CCK	1800.8	-4	7731.8	-7	-65.8	NM	181.3	73	NM	NM	6.3	13	1.
OWENS-ILLINOIS OI	1366.6	0	5522.9	4	41.4	NM	299.1	145	3.0	NM	13.7	9	1.
SILGAN HOLDINGS SLGN	453.4	1	1856.8	7	0.8	-89	23.9	-48	0.2	1.7	NM	11	1.
(B) PAPER													
GROUP COMPOSITE	**7713.2**	**21**	**28852.4**	**22**	**607.9**	**NM**	**1268.9**	**95**	**7.9**	**0.1**	**12.8**	**21**	**1.**
AVERY DENNISON AVY	944.8	7	3768.2	9	67.3	20	215.4	-4	7.1	6.3	26.6	31	2.
BEMIS BMS	493.9	7	1918.0	4	33.3	30	114.8	13	6.7	5.5	15.8	14	2.
GAYLORD CONTAINER GCR [3]	279.6	41	951.4	13	0.9	NM	-30.4	NM	0.3	NM	NM	NM	-0.
MAIL-WELL MWL	475.7	10	1848.0	23	17.2	23	64.5	36	3.6	3.2	17.2	8	1.
ROCK-TENN RKT [3]	345.9	11	1345.4	4	8.6	-2	39.6	-6	2.5	2.8	9.0	10	1.
SEALED AIR SEE	750.8	4	2839.6	13	59.9	-7	211.5	190	8.0	8.9	28.1	31	1.
SMURFIT-STONE CONTAINER SSCC	1924.0	63	7151.0	106	289.0	NM	163.0	NM	15.0	NM	10.5	24	0.
SONOCO PRODUCTS SON	754.5	18	2546.7	0	51.2	61	187.8	-2	6.8	5.0	20.8	11	1.
TEMPLE-INLAND TIN	972.5	22	3682.1	12	56.8	NM	191.6	116	5.8	NM	9.7	16	3.
WESTVACO W [2]	771.5	5	2801.8	-3	23.7	-29	111.2	-16	3.1	4.5	5.1	24	1.
8 DISCOUNT & FASHION RETAILING													
INDUSTRY COMPOSITE	**151014.3**	**15**	**588482.7**	**13**	**4648.4**	**47**	**19469.4**	**12**	**3.1**	**2.4**	**16.2**	**35**	**1.**
ABERCROMBIE & FITCH ANF [11]	287.0	25	978.8	35	38.9	56	130.1	69	13.6	10.9	56.3	17	1.
ALBERTO-CULVER ACV [3]	525.8	13	2037.2	10	20.8	12	88.5	[redacted]	4.0	4.0	16.1	15	1.
AMAZON.COM AMZN	676.0	167	1639.8	169	-323.2	NM	-720.0	NM	NM	NM	NM	NM	-2.
AMES DEPARTMENT STORES AMES [11]	941.8**	58	3499.7	46	-17.5	NM	-44.7	NM	NM	1.0	-10.0	NM	-1.
ANNTAYLOR STORES ANN [11]	272.3**	20	1050.3	22	21.4	52	61.4	105	7.9	6.2	10.9	8	2.
AUTOZONE AZO [4]	1006.5	12	4221.9	22	56.0	9	249.5	8	5.6	5.7	20.4	14	1.
BARNES & NOBLE BKS [11]	715.9	9	3190.7	8	3.4	NM	131.5	134	0.5	NM	15.8	11	1.
BJ'S WHOLESALE CLUB BJ [11]	1014.0	20	3985.1	14	23.3	62	101.2	32	2.3	1.7	19.0	26	1.
BORDERS GROUP BGP [11]	656.3	18	2851.4	14	-1.5	NM	78.5	-7	NM	NM	11.2	14	0.
BRADLEES BRAD [11]	350.2**	11	1473.6	8	-6.9	NM	-126.4	NM	NM	NM	NM	NA	
BURLINGTON COAT FACTORY BCF [7]	622.5	4	2056.7	26	29.9	-1	52.7	137	4.8	5.0	9.3	9	1.
CDW COMPUTER CENTERS CDWC	741.3	55	2561.2	48	29.9	63	98.1	49	4.0	3.8	25.1	31	2.
CHARMING SHOPPES CHRS [11]	277.4	16	1120.4	[redacted]	8.3	NM	26.1	NM	3.0	NM	6.2	31	0.
COLE NATIONAL CNJ [11]	257.6	0	1063.8	0	-2.8	NM	-6.5	NM	NM	3.5	-4.3	NM	-0.
CONSOLIDATED STORES CNS [11]	999.6	17	4543.3	10	-15.0	NM	95.7	64	NM	NM	8.1	16	0.
COSTCO WHOLESALE COST [4]	6943.5**	16	28401.5	14	129.3	24	540.4	16	1.9	1.7	14.6	45	1.
CSK AUTO CAO [11]	331.3	26	1151.2	19	11.7	11	42.6	144	3.5	4.0	30.3	7	1.
DILLARD'S DDS [11]	2132.0**	2	8927.3	19	34.8	NM	212.4	23	1.6	NM	7.3	[redacted]	1.
DOLLAR GENERAL DG [11]	950.4	22	3703.2	20	50.9	26	206.8	22	5.4	5.2	23.7	27	0.
DOLLAR TREE STORES DLTR	452.3	30	1198.0	27	56.6	46	98.0	39	12.5	11.1	27.3	29	1.
FAMILY DOLLAR STORES FDO [4]	713.5	14	2836.7	16	36.6	24	147.1	35	5.1	4.7	20.4	21	0.
FEDERATED DEPARTMENT STORES FD [11]	4242.0**	16	17267.0	10	123.0	12	755.0	15	2.9	3.0	12.3	11	3.
GAP GPS [11]	3045.4	27	10806.3	32	315.0	33	1027.1	41	10.3	9.9	53.5	43	1.
GOODY'S FAMILY CLOTHING GDYS [11]	268.1	7	1168.8	10	1.7	-49	27.3	-26	0.6	1.3	12.8	6	0.

CORPORATE SCOREBOARD

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E DEPOT HD [11]	9877.0	28	36518.0	27	573.0	46	2160.0	44	5.8	5.1	18.4	64	0.93
EBASE HBI [11]	379.2	5	1506.9	3	3.9	-46	15.1	17	1.0	2.0	3.8	9	0.37
GHT ENTERPRISES NSIT	417.9	41	1518.4	51	9.5	53	33.6	64	2.3	2.1	16.1	28	1.25
MATE BRANDS IBI [11]	814.2	15	4240.3	13	37.9	-4	416.0	33	4.7	5.6	132.9	22	1.60
NN STORES JAS.A [11]	347.1	[illegible]	1343.9	18	8.3	144	26.2	94	2.4	1.1	10.5	7	1.35
RT KM [11]	8057.0	5	35359.0	7	43.0	13	597.0	70	0.5	0.5	10.1	7	1.14
.S KSS [11]	1099.9	24	4239.2	22	53.0	33	231.6	36	4.8	4.5	14.8	57	1.40
S' END LE [11]	326.0	1	1411.4	[illegible]	8.8	NM	45.4	-3	2.7	0.1	17.1	20	1.48
TED LTD [11]	2064.1	3	9692.6	4	40.7	4	377.1	-80	2.0	2.0	20.1	21	1.61
E'S LOW [11]	3909.2	19	15032.0	20	168.7	38	630.1	33	4.3	3.7	13.9	28	1.67
DEPARTMENT STORES MAY [11]	3245.0**	5	14053.0	7	138.0	6	892.0	[illegible]	4.3	4.2	22.8	11	2.46
'S WEARHOUSE SUIT [11]	272.8	16	1051.7	15	13.0	47	44.4	[illegible]	4.8	3.8	13.5	22	1.13
AELS STORES MIKE [11]	463.0	21	1751.9	14	10.4	44	45.9	18	2.3	1.9	9.0	19	1.51
IAN MARCUS GROUP NMG.A [5]	677.7**	15	2644.0	11	37.4	46	105.4	6	5.5	4.4	13.5	11	2.14
OSTROM JWN [11]	1137.2**	1	5114.9	0	33.6	-13	202.6	2	3.0	3.4	16.6	16	1.44
CE DEPOT ODP	2718.9	18	10263.3	14	84.0	22	257.6	10	3.1	3.0	13.8	20	0.69
CEMAX OMX [11]	1301.8	13	4701.5	12	-37.4	NM	-19.7	NM	NM	2.9	-1.8	NM	-0.17
ESS SHOESOURCE PSS [11]	669.4	4	2694.6	3	34.6	3	135.4	-2	5.2	5.2	18.7	10	4.24
ONNECTION PCCC	317.8	44	1056.7	44	7.6	52	22.7	22	2.4	2.3	24.1	21	1.41
IEY (J.C.) JCP [11]	7978.0**	[illegible]	32172.0	3	142.0	-24	555.0	-6	1.8	2.5	7.5	9	2.01
BOYS-MANNY, MOE & JACK PBY [11]	605.8	-2	2402.8	3	9.9	NM	21.2	NM	1.6	NM	3.2	15	0.48
MART PETM [11]	511.8	-2	2122.0	4	-33.2	NM	-7.6	NM	NM	1.0	-2.4	NM	-0.08
S STORES ROST [11]	608.7	15	2404.1	13	34.6	24	153.0	19	5.7	5.3	35.9	[illegible]	1.65
ECOM ROWE	294.4	NM	307.6	NM	-1.6	NM	-15.1	NM	NM	NM	-28.2	NM	-1.80
SKS [11]	1599.2**	9	6621.0	11	25.9	NM	178.5	-37	1.6	NM	8.7	9	1.21
S, ROEBUCK S	12504.0	2	41071.0	-1	740.0	38	1453.0	39	5.9	4.4	23.0	[illegible]	3.81
KO STORES SKO [11]	1018.2	40	3565.3	36	9.4	34	97.1	140	0.9	1.0	14.7	5	3.53
TS AUTHORITY TSA [11]	327.6	-11	1529.5	-2	-10.7	NM	-8.9	NM	NM	NM	-3.3	NM	-0.28
E STORES SGE [11]	264.3	-3	1154.1	-3	0.2	NM	-20.1	NM	0.1	NM	-10.8	NM	-0.71
LES SPLS [11]	2393.8	26	8383.1	24	92.5	34	266.9	42	3.9	3.6	15.8	50	0.56
OTS TLB [11]	317.3**	19	1250.7	12	20.0	57	51.3	182	6.3	4.8	11.5	19	1.63
ET TGT [11]	8009.0**	10	33114.0	11	241.0	32	1110.0	27	3.0	2.5	21.6	28	2.37
NY TIF [11]	322.7**	28	1344.9	23	22.0	81	114.4	45	6.8	4.8	16.9	43	1.57
JX [11]	2257.1	11	8590.3	9	157.0	17	526.2	30	7.0	6.6	43.8	11	1.63
'R' US TOY [11]	2465.0	14	11771.0	5	15.0	NM	354.0	NM	0.6	NM	10.2	8	1.41
OFFICE PRODUCTS OFIS [8]	642.5	-5	2603.4	-3	-27.4	NM	-164.9	NM	NM	NM	-38.8	NM	-4.49
E CITY DEPARTMENT STORES VCD [11]	444.3**	24	1595.7	25	7.7	92	29.5	40	1.7	1.1	5.1	18	0.90
TOR GROUP Z [11]	1178.0	5	4652.0	0	7.0	NM	-16.0	NM	0.6	NM	-1.6	NM	-0.12
MART STORES WMT [11]	40432.0	21	154404.0	17	1299.0	29	5217.0	25	3.2	3.0	21.5	50	1.17
ZLC [5]	322.6	27	1497.3	14	5.5	153	84.2	20	1.7	0.9	12.4	15	2.30
ELECTRICAL & ELECTRONICS													
USTRY COMPOSITE	**61609.0**	**20**	**221446.2**	**15**	**6053.3**	**61**	**16951.8**	**71**	**9.8**	**7.4**	**12.3**	**68**	**1.32**
LECTRICAL PRODUCTS													
UP COMPOSITE	**10785.5**	**13**	**42613.0**	**12**	**910.4**	**42**	**3522.8**	**52**	**8.4**	**6.7**	**21.3**	**14**	**3.05**
RICAN POWER CONVERSION APCC	388.7	22	1337.3	19	66.5	40	206.2	40	17.1	14.9	22.9	29	1.05
ER INDUSTRIES CBE	1004.5	14	3868.9	6	83.9	-35	331.9	-1	8.4	14.6	19.6	10	3.50
N ETN	2214.0	38	8402.0	27	224.0	211	617.0	77	10.1	4.5	23.5	8	8.36
SON ELECTRIC EMR [3]	3543.3	3	14386.1	5	324.9	7	1336.1	7	9.2	8.8	21.6	15	3.06
ELL HUB.B	343.3	-2	1451.8	2	27.2	-36	145.8	-14	7.9	12.0	16.8	11	2.21
ONAL SERVICE INDUSTRIES NSI [4]	620.0	19	2320.3	12	24.4	-5	123.0	14	3.9	5.0	19.4	8	3.01
WELL INTERNATIONAL ROK [3]	1660.0	3	7095.0	5	157.0	17	605.0	NM	9.5	8.3	22.6	14	3.12
H (A.O.) AOS	286.6	48	1039.3	34	11.6	14	50.3	24	4.1	5.3	11.7	8	2.11
SPW	725.1	13	2712.3	49	-9.1	NM	107.5	NM	NM	NM	19.5	22	3.46
LECTRONICS													
UP COMPOSITE	**13831.4**	**10**	**49821.9**	**11**	**347.6**	**-5**	**1043.7**	**NM**	**2.5**	**2.9**	**2.1**	**NM**	**0.49**
IS HRS [6]	441.0	6	1753.2	-1	13.6	-22	48.2	-8	3.1	4.2	NA	53	0.62
IES ELECTRONICS GMH	1698.0	54	5560.3	60	-283.7	NM	391.1	NM	NM	6.4	-5.5	NM	-1.05
OMMUNICATIONS HOLDINGS LLL	433.1	32	1405.5	36	23.1	66	58.7	80	5.3	4.2	10.7	26	1.75
N INDUSTRIES LIT [5]	1370.8	14	4990.8	[illegible]	52.8	12	126.1	-32	3.8	3.9	9.3	13	2.70
IROLA MOT	8498.0	2	30931.0	5	349.0	119	817.0	NM	4.1	1.9	5.0	NM	1.31
COMM QCOM [3]	1120.1	19	4116.1	17	177.1	265	329.5	174	15.8	5.2	8.9	NM	0.49
ORMATIC ELECTRONICS SRM [6]	270.4	8	1065.0	9	15.7	115	55.3	109	5.8	2.9	5.8	32	0.57
NSTRUMENTS													
UP COMPOSITE	**4970.1**	**36**	**17718.5**	**16**	**367.5**	**NM**	**1134.6**	**138**	**7.4**	**NM**	**15.9**	**66**	**1.23**
NT TECHNOLOGIES A [2]	2448.0	23	8331.0	5	146.0	NM	512.0	99	6.0	NM	15.1	57	1.35
IE GROUP AGI [6]	528.3	262	1883.8	243	5.7	4	17.9	-7	1.1	4.1	22.7	11	1.02
MAN COULTER BEC	517.3	7	1808.7	[illegible]	38.6	109	106.0	216	7.5	3.8	56.9	14	3.57
ENCOR KLAC [6]	330.8	71	1048.3	13	49.2	NM	135.4	444	14.9	NM	9.9	98	0.72
OSYSTEMS GROUP PEB [6]	335.9	26	1301.8	27	43.8	53	134.2	138	13.0	10.7	28.4	NM	1.64

CORPORATE SCOREBOARD

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TEKTRONIX TEK [7]	261.3	–4	1553.9	–4	8.9	NM	37.4	NM	3.4	NM	6.0	52	0
TERADYNE TER	548.5	74	1790.9	20	75.2	535	191.7	88	13.7	3.7	16.6	74	1
(D) SEMICONDUCTORS & OTHER COMPONENTS													
GROUP COMPOSITE	**32022.0**	**26**	**111292.8**	**18**	**4427.8**	**56**	**11250.7**	**48**	**13.8**	**11.2**	**14.7**	**70**	**1**
ADVANCED MICRO DEVICES AMD	968.7	23	2857.6	12	65.1	192	–88.9	NM	6.7	2.8	–4.5	NM	–0
AMKOR TECHNOLOGY AMKR	538.3	27	1910.0	22	20.2	3	76.7	2	3.8	4.6	10.4	69	0
AMPHENOL APH	269.1	15	1010.6	10	14.0	69	44.3	21	5.2	3.5	NM	28	2
ANALOG DEVICES ADI [2]	431.0	45	1450.4	18	73.2	178	196.8	65	17.0	8.8	12.2	NM	1
ATMEL ATML	388.7	35	1330.2	20	33.0	232	82.4	NM	8.5	3.5	10.3	99	0
AVX AVX [9]	416.4	34	1449.7	18	42.5	602	93.6	47	10.2	1.9	10.2	65	1
BENCHMARK ELECTRONICS BHE	338.8	136	877.8	68	1.3	–73	13.3	–19	0.4	3.3	4.7	39	0
CONEXANT SYSTEMS CNXT [3]	510.0	73	1659.4	49	51.8	NM	121.9	NM	10.2	NM	10.3	NM	0
DII GROUP DIIG	447.3	71	1339.9	45	20.9	787	58.4	NM	4.7	0.9	10.6	51	1
HADCO HDC [2]	262.0	21	1006.0	22	8.7	NM	22.0	NM	3.3	0.2	10.0	28	1
INTEL INTC	8212.0	8	29389.0	12	2108.0	2	7314.0	21	25.7	27.1	25.1	51	2
JABIL CIRCUIT JBL [4]	689.8	39	2195.1	51	26.5	32	97.9	69	3.8	4.0	16.2	64	1
JDS UNIPHASE JDSU [6]	281.7	342	673.4	205	–131.2	NM	–426.8	NM	NM	3.8	–9.2	NM	–1
LSI LOGIC LSI	584.9	30	2089.4	38	93.2	855	158.9	NM	15.9	2.2	8.6	NM	1
MICRON TECHNOLOGY MU [4]	1584.4	100	4554.8	59	341.3	NM	318.6	NM	21.5	NM	7.3	65	1
MOLEX MOLX [6]	543.0	26	1906.9	16	54.1	23	194.6	11	10.0	10.2	11.7	45	1
NATIONAL SEMICONDUCTOR NSM [7]	513.9	1	1972.8	–8	98.8	NM	–664.8	NM	19.2	NM	–51.6	NM	–4
SANMINA SANM [3]	459.7	67	1398.9	32	36.2	NM	130.4	88	7.9	NM	19.6	56	2
SCI SYSTEMS SCI [6]	2155.4	24	7224.7	10	49.3	51	165.2	24	2.3	1.9	13.1	31	2
SOLECTRON SLR [4]	2501.8	29	8947.6	47	101.5	59	331.5	52	4.1	3.3	11.4	62	1
TEXAS INSTRUMENTS TXN	2554.0	26	9468.0	10	430.0	116	1406.0	238	16.8	9.8	15.2	86	1
TYCO INTERNATIONAL TYC [3]	6638.8	27	23921.8	12	784.3	54	1306.0	–8	11.8	9.8	14.9	40	1
VISHAY INTERTECHNOLOGY VSH	468.0	14	1760.1	12	36.5	NM	83.2	914	7.8	NM	8.2	45	0
XILINX XLNX [9]	264.3	54	898.7	42	68.5	90	215.3	79	25.9	21.0	18.0	92	0
10 FOOD													
INDUSTRY COMPOSITE	**98490.7**	**7**	**360514.1**	**4**	**3781.8**	**26**	**11197.7**	**9**	**3.8**	**3.3**	**19.4**	**19**	**1**
(A) FOOD DISTRIBUTION													
GROUP COMPOSITE	**13214.7**	**17**	**49228.2**	**10**	**205.2**	**19**	**775.8**	**26**	**1.6**	**1.5**	**16.6**	**20**	**1**
ANDERSONS ANDE	341.6	–7	974.7	–11	3.4	–35	8.4	–14	1.0	1.4	9.9	7	1
INTERNATIONAL MULTIFOODS IMC [10]	632.2	3	2362.9	4	8.1	–17	24.8	477	1.3	1.6	9.9	9	1
PERFORMANCE FOOD GROUP PFGC	552.7	13	2055.6	19	5.9	21	19.3	11	1.1	1.0	10.2	18	1
SUPERVALU SVU [10]	5361.7	31	18998.1	8	58.7	30	225.2	19	1.1	1.1	12.1	9	1
SYSCO SYY [6]	4651.5	10	18292.1	13	101.9	18	397.0	19	2.2	2.0	27.7	28	1
U.S. FOODSERVICE UFS [6]	1675.0	9	6544.8	13	27.3	32	101.2	66	1.6	1.3	11.8	13	1
(B) FOOD PROCESSING													
GROUP COMPOSITE	**51255.2**	**3**	**195320.2**	**1**	**3024.8**	**37**	**8683.3**	**12**	**5.9**	**4.4**	**22.3**	**18**	**1**
AGRIBRANDS INTERNATIONAL AGX [4]	300.9	–9	1230.0	–10	13.9	25	46.8	124	4.6	3.3	12.1	10	4
ARCHER DANIELS MIDLAND ADM [6]	3420.3	–13	13211.7	–18	101.9	–8	192.3	–47	3.0	2.8	3.1	35	0
BESTFOODS BFO	2223.0	3	8637.0	3	213.0	28	717.0	12	9.6	7.7	93.9	17	2
CAMPBELL SOUP CPB [5]	1768.0	–2	6388.0	–4	235.0	–11	695.0	–1	13.3	14.6	304.8	17	3
CHIQUITA BRANDS INTERNATIONAL CQB	618.7	–1	2555.8	–6	–77.8	NM	–58.4	NM	NM	NM	–14.1	NM	–1
CONAGRA CAG [7]	6602.9	0	24903.0	2	187.3	–14	319.2	–50	2.8	3.3	10.5	29	0
CORN PRODUCTS INTERNATIONAL CPO	452.3	18	1734.8	20	17.0	45	77.2	80	3.8	3.1	7.7	11	2
DEAN FOODS DF [7]	1067.0	14	4064.0	25	27.0	16	78.9	–12	2.5	2.5	10.8	16	0
DEL MONTE FOODS DLM [6]	455.4	6	1549.0	8	22.8	124	63.3	NM	5.0	2.4	NM	10	0
DOLE FOOD DOL	1143.5	10	5060.6	14	–28.5	NM	48.5	302	NM	NM	8.4	17	0
EARTHGRAINS EGR [9]	642.8	6	2002.4	4	18.7	10	47.0	4	2.9	2.8	7.2	13	0
FLOWERS INDUSTRIES FLO	1010.8	1	4236.0	12	19.3	NM	7.3	–84	1.9	NM	1.4	NM	0
GENERAL MILLS GIS [7]	1817.2	8	6486.4	6	193.7	35	598.1	17	10.7	8.6	233.0	16	0
HEINZ (H.J.) HNZ [8]	2344.1	1	9274.1	0	415.5	80	651.4	–20	17.7	10.0	36.1	20	0
HERSHEY FOODS HSY	1105.8	–11	3970.9	–10	98.0	–11	460.3	35	8.9	8.9	41.9	13	0
HORMEL FOODS HRL [2]	950.8	4	3357.8	3	59.7	32	163.4	17	6.3	5.0	19.4	17	0
IBP IBP	3850.7	25	14075.2	10	81.5	–11	313.3	53	2.1	3.0	18.3	4	1
IMPERIAL SUGAR IHK [3]	468.6	–1	1885.5	4	13.9	489	–6.6	NM	3.0	0.5	–1.8	NM	–1
INTERSTATE BAKERIES IBC [7]	810.6	0	3476.4	4	27.9	–13	120.7	–7	3.4	3.9	19.7	8	0
KEEBLER FOODS KBL	612.0	2	2667.8	20	44.8	31	88.2	–9	7.3	5.7	21.5	22	0
KELLOGG K	1586.1	–1	6984.2	3	100.9	116	338.3	–33	6.4	2.9	41.6	26	0
LANCASTER COLONY LANC [6]	324.4	8	1085.9	7	33.1	17	102.3	8	10.2	9.4	24.7	12	0
McCORMICK MKC [1]	620.4	6	2006.9	7	54.0	8	103.3	–1	8.7	8.6	27.0	19	0
NABISCO GROUP HOLDINGS NGH	2333.0	6	8268.0	–2	113.0	NM	255.0	NM	4.8	NM	8.1	12	0
NABISCO HOLDINGS NA	2333.0	6	8268.0	–2	142.0	647	360.0	NM	6.1	0.9	9.4	22	0
PILGRIM'S PRIDE CHX [3]	354.8	6	1376.1	3	14.9	–7	64.2	17	4.2	4.7	20.8	5	0
QUAKER OATS OAT	949.1	–1	4725.2	–2	59.0	–19	455.0	60	6.2	7.6	183.8	17	0
RALSTON PURINA RAL [3]	1414.5	9	4843.2	5	242.8	37	571.1	34	17.2	13.7	45.4	15	0
SARA LEE SLE [6]	5330.0	1	20146.0	1	389.0	21	1178.0	–1	7.3	6.1	67.2	14	0

RPORATE SCOREBOARD

MPANY SYMBOL	SALES 4TH QUARTER 1999 $ MIL	CHANGE FROM 1998 %	SALES 12 MONTHS 1999 $ MIL	CHANGE FROM 1998 %	PROFITS 4TH QUARTER 1999 $ MIL	CHANGE FROM 1998 %	PROFITS 12 MONTHS 1999 $ MIL	CHANGE FROM 1998 %	MARGINS 4TH QUARTER 1999 %	MARGINS 4TH QUARTER 1998 %	RETURN ON COMMON EQUITY 12 MONTHS ENDING [illegible] %	PRICE-EARNINGS RATIO [illegible]	12 MONTHS EARNINGS PER SHARE $
THFIELD FOODS SFD [8]	1230.1	41	4407.3	19	22.2	20	110.9	93	1.8	2.1	17.1	6	2.61
RBUCKS SBUX [3]	527.0	30	1801.5	31	34.7	30	109.7	48	6.6	6.6	11.4	55	0.58
ON FOODS TSN [3]	1778.7	-3	7316.9	-5	57.0	2	231.3	543	3.2	3.1	10.8	12	1.01
SIC FOODS INTERNATIONAL VL [5]	264.4	-19	1245.3	-7	4.1	-12	-126.9	NM	1.5	1.4	NM	NM	-2.79
GLEY (WM.) JR. WWY	544.2**	8	2079.2	3	73.4	4	308.2	1	13.5	14.0	24.0	28	2.66
FOOD RETAILING													
)UP COMPOSITE	**34020.7**	**9**	**115965.7**	**7**	**551.8**	**-12**	**1738.5**	**-10**	**1.6**	**2.0**	**12.3**	**23**	**0.99**
ERTSON'S ABS [11]	8982.6	2	31750.5	5	129.9	-41	353.9	-55	1.4	2.5	6.4	23	1.16
NO'S BRNOQ [11]	398.7	-9	1662.2	19	-8.0	NM	-40.6	NM	NM	1.6	NM	NM	-1.59
HAIZE AMERICA DZA	3378.5	[illegible]	10878.7	6	100.5	19	300.4	10	3.0	2.7	18.8	9	1.91
ND UNION GUCO [9]	520.3	-1	2267.1	1	-35.6	NM	-131.4	NM	NM	NM	-54.0	NM	-4.38
AT ATLANTIC & PACIFIC TEA GAP [10]	2332.1	-1	10156.6	-1	21.4	NM	-81.4	NM	0.9	NM	-9.7	NM	-2.12
NAFORD BROTHERS HRD	887.6	4	3462.9	4	28.3	1	98.0	4	3.2	3.3	13.9	31	2.28
ES MARKETS IMKTA [3]	468.4	3	1820.4	7	4.9	21	19.6	263	1.0	0.9	8.6	13	0.87
DICK RDK [3]	665.5	2	2638.1	5	13.4	6	51.4	8	2.0	1.9	11.6	12	1.10
EWAY SWY	9934.7	25	28859.9	18	305.3	20	970.9	20	3.1	3.2	22.0	20	1.88
EVEN SVEV	2176.4**	18	8349.5	14	10.5	642	78.8	55	0.5	0.1	NM	21	0.17
N-DIXIE STORES WIN [6]	4276.0	0	14119.7	2	-18.8	NM	118.7	-27	NM	1.2	9.4	22	0.80
FUEL													
USTRY COMPOSITE	**132262.6**	**36**	**442637.6**	**12**	**5500.4**	**NM**	**17866.8**	**73**	**4.2**	**NM**	**11.1**	**30**	**1.79**
COAL, OIL & GAS													
UP COMPOSITE	**124466.7**	**40**	**412732.0**	**15**	**5303.0**	**NM**	**17076.2**	**77**	**4.3**	**NM**	**11.9**	**27**	**1.97**
RADA HESS AHC	2268.8	40	7039.1	7	131.1	NM	437.6	NM	5.8	NM	15.0	10	4.85
CHE APA	445.8	125	1300.5	49	97.5	NM	200.9	NM	21.9	NM	8.3	21	1.72
H COAL ACI	369.1	-11	1556.3	4	-348.4	NM	-350.1	NM	NM	0.0	NM	NM	-9.12
LAND ASH [3] †	1911.0	14	7140.0	7	-166.0	NM	135.0	-4	NM	NM	6.8	19	1.71
NTIC RICHFIELD ARC	3616.0	42	12501.0	21	537.0	NM	1345.0	NM	14.9	NM	15.5	16	4.09
INGTON RESOURCES BR	627.0	26	2065.0	3	-84.0	NM	1.0	NM	NM	NM	0.0	NM	0.00
VRON CHV	10611.0	48	35448.0	18	809.0	NM	2070.0	55	7.6	NM	12.0	24	3.14
STAL CGP	2535.4	39	8197.2	11	169.0	-3	498.9	3	6.7	9.6	13.2	17	2.30
OCO COC.B	8160.0***	44	27309.0	18	324.0	NM	744.0	65	4.0	NM	16.9	18	1.17
IN ENERGY DVN	323.1	261	734.5	90	47.9	NM	94.6	NM	14.8	NM	5.1	NA	1.46
IN MOBIL XOM	50010.0	34	165464.0	11	2284.0	66	7910.0	-3	4.6	3.7	13.7	34	2.25
N-McGEE KMG	800.5	49	2696.1	23	109.7	NM	146.2	NM	13.7	NM	10.1	28	1.69
HELL ENERGY & DEVELOPMENT MND.B [11] †	265.6	52	826.5	10	29.5	NM	14.7	31	11.1	NM	4.0	79	0.29
DENTAL PETROLEUM OXY	2506.0	48	7610.0	15	487.0	NM	568.0	75	19.4	NM	17.4	12	1.58
IZOIL-QUAKER STATE PZL	765.1	77	2988.9	62	-318.3	NM	-320.9	NM	NM	NM	-33.8	NM	-4.12
LIPS PETROLEUM P	4300.0**	59	13900.0	18	250.0	NM	609.0	157	5.8	NM	13.9	16	2.41
OCO SUN	3111.0***	45	10068.0	17	38.0	-27	97.0	-65	1.2	2.4	6.5	22	1.07
CO TX	10562.0**	35	35698.0	13	318.0	NM	1177.0	104	3.0	NM	9.6	24	2.14
O TOS	4185.7	47	14362.1	19	215.3	NM	441.7	316	5.1	NM	23.2	10	2.83
AMAR DIAMOND SHAMROCK UDS	4018.1	57	13975.1	26	24.6	NM	173.2	NM	0.6	NM	11.7	12	2.00
N PACIFIC RESOURCES GROUP UPR	462.6**	24	1727.5	-6	10.9	NM	89.2	NM	2.4	NM	9.9	28	0.36
CAL UCL	1934.0**	38	6057.0	19	75.0	NM	113.0	22	3.9	NM	5.4	59	0.46
MARATHON GROUP MRO	7461.0**	40	24212.0	12	171.0	NM	654.0	111	2.3	NM	14.1	11	2.11
RO ENERGY VLO	2637.7	90	7961.2	44	16.5	NM	14.3	NM	0.6	NM	1.3	93	0.25
AR RESOURCES VRI	580.3	42	1895.1	18	74.7	315	213.1	56	12.9	4.4	28.9	24	2.16
ETROLEUM SERVICES													
UP COMPOSITE	**7795.8**	**-9**	**29905.6**	**-16**	**197.4**	**241**	**790.5**	**17**	**2.5**	**0.7**	**4.7**	**80**	**0.58**
RVICES BJS [3]	354.8**	21	1191.7	-15	20.5	NM	-2.2	NM	5.8	NM	-0.3	NM	-0.07
ER CAMERON CAM	322.3	-32	1464.7	-22	7.2	-73	43.0	-68	2.2	5.6	6.0	61	0.78
IBURTON HAL	3771.0**	-12	14898.0	-14	76.0	15	298.0	NM	2.0	1.5	7.2	53	0.67
E AFFILIATES NBL	257.9	27	909.8	0	21.5	NM	49.5	NM	8.3	NM	7.4	25	0.87
UMBERGER SLB	2179.3	13	8394.9	-22	58.5	-66	329.3	-47	2.7	6.9	4.3	NM	0.58
H INTERNATIONAL SII	537.9	16	1806.2	15	6.3	NM	56.7	66	1.2	NM	7.9	45	1.15
HERFORD INTERNATIONAL WFT	372.6	23	1240.2	-9	7.5	NM	16.2	NM	2.0	NM	0.9	NM	0.16
HEALTH CARE													
STRY COMPOSITE	**108829.0**	**15**	**407279.6**	**16**	**9376.6**	**31**	**32376.2**	**7**	**8.6**	**7.5**	**24.2**	**38**	**1.31**
RUG DISTRIBUTION													
UP COMPOSITE	**39020.8**	**20**	**143277.0**	**21**	**740.2**	**38**	**2345.9**	**28**	**1.9**	**1.6**	**14.6**	**30**	**0.93**
ISOURCE HEALTH AAS [3]	2839.4	20	10272.0	9	21.6	21	74.6	55	0.8	0.8	39.5	12	1.41
EN BRUNSWIG BBC [3]	5929.0**	18	22154.2	21	14.7	47	57.3	494	0.2	0.6	3.8	13	0.43
INAL HEALTH CAH [6]	7399.5**	18	27166.7	17	173.5	23	526.9	14	2.3	2.3	[illegible]	27	1.85
MARK RX CMX	913.5	28	3307.8	26	22.7	102	59.1	92	2.5	1.6	NM	15	0.29
[illegible]	5183.6	24	18098.3	18	186.3	29	635.1	[illegible]	3.6	3.5	18.2	26	1.55
HEALTHCARE RESOURCES DKWD [6]	336.9	70	1098.1	56	1.7	24	7.1	55	0.5	0.7	[illegible]	9	[illegible]
S DRUG STORES LDG [11]	866.9	7	3539.8	12	[illegible]	13	68.4	11	1.4	1.4	10.2	12	1.75
SSON HBOC MCK [9]	9890.9**	19	35824.2	30	160.6	256	211.7	4	1.6	0.5	7.6	26	0.74

CORPORATE SCOREBOARD

COMPANY SYMBOL	SALES 4TH QUARTER 1999 $ MIL	SALES CHANGE FROM 1998 %	SALES 12 MONTHS 1999 $ MIL	SALES CHANGE FROM 1998 %	PROFITS 4TH QUARTER 1999 $ MIL.	PROFITS CHANGE FROM 1998 %	PROFITS 12 MONTHS 1999 $ MIL.	PROFITS CHANGE FROM 1998 %	MARGINS 4TH QUARTER 1999 %	MARGINS 4TH QUARTER 1998 %	RETURN ON COMMON EQUITY 12 MONTHS ENDING 12-31	PRICE-EARNINGS RATIO 2-10	MONTHS EARNINGS PER SHARE
OMNICARE OCR	487.6	12	1861.9	23	11.1	–58	57.7	–28	2.3	6.0	5.6	15	0
PHAR-MOR PMOR [6]	350.4	18	1308.4	17	7.9	111	–0.1	NM	2.3	1.3	–0.1	NM	0
WALGREEN WAG [4]	4823.2	20	18645.6	18	127.8	23	647.9	17	2.7	2.6	18.0	47	0
(B) DRUGS & RESEARCH													
GROUP COMPOSITE	**38059.1**	**13**	**141306.8**	**13**	**6998.0**	**31**	**21808.1**	**–2**	**18.4**	**15.8**	**30.7**	**42**	**1.**
ABBOTT LABORATORIES ABT	3467.9	4	13177.6	5	664.0	6	2445.8	5	19.1	18.8	36.6	22	1
ALLERGAN AGN	380.3	10	1406.2	11	59.3	107	188.2	NM	15.6	8.3	29.7	46	1
AMERICAN HOME PRODUCTS AHP	3467.3	7	13550.2	1	593.2	70	–1227.1	NM	17.1	10.8	–21.8	NM	–0
AMGEN AMGN	926.9	23	3340.1	23	281.6	18	1096.4	27	30.4	31.6	36.3	64	1
BRISTOL-MYERS SQUIBB BMY	5408.0	11	20222.0	11	1052.0	16	4167.0	15	19.5	18.6	49.4	30	2.
GENENTECH DNA	338.1**	21	1331.9	25	–172.9	NM	–1144.5	NM	NM	13.2	–21.7	NM	–4
LILLY (ELI) LLY	2820.5	7	10002.9	[illegible]	786.3	40	2546.7	21	27.9	21.3	52.3	27	2.
MERCK MRK †	8963.4	19	32714.0	22	1573.2	12	5890.5	12	17.6	18.6	45.8	28	2.
PFIZER PFE	4506.0	17	16204.0	20	954.0	212	3199.0	64	21.2	7.9	36.4	43	0
PHARMACIA & UPJOHN PNU	1943.0	5	7253.0	7	214.0	75	803.0	27	11.0	6.6	14.3	34	1
SCHERING-PLOUGH SGP	2303.0	12	9176.0	14	506.0	21	2110.0	20	22.0	20.4	44.5	31	1.
WARNER-LAMBERT WLA	3534.6	16	12928.9	20	487.3	40	1733.2	36	13.8	11.5	37.8	48	1
(C) HEALTH-CARE SERVICES													
GROUP COMPOSITE	**16396.4**	**13**	**62955.4**	**12**	**–69.2**	**NM**	**1024.0**	**–30**	**NM**	**3.0**	**6.7**	**25**	**0.**
EXPRESS SCRIPTS ESRX	1308.8	56	4288.1	52	119.3	900	157.4	269	9.1	1.4	22.5	12	4.
HEALTH MANAGEMENT ASSOCIATES HMA [3]	370.1	21	1420.3	17	34.3	11	153.2	7	9.3	10.1	17.4	22	0.
HUMANA HUM	2574.0	4	10113.0	3	–416.0	NM	–382.0	NM	NM	2.3	30.1	NM	–2.
MANOR CARE HCR	536.3	–3	2135.3	–3	–163.3	NM	–55.2	NM	NM	5.0	–5.6	26	–0.
PACIFICARE HEALTH SYTEMS PHSY	2587.8**	9	10073.1	5	66.4	13	278.5	38	2.6	2.5	14.1	7	6.
QUEST DIAGNOSTICS DGX	814.5	124	2205.2	51	–14.5	NM	–1.3	NM	NM	1.5	–0.2	NM	–0.
QUORUM HEALTH GROUP QHGI [6]	432.9	12	1741.3	13	12.6	NM	55.3	16	2.9	NM	8.8	13	0.
TENET HEALTHCARE THC [7]	2780.0	8	11417.0	11	135.0	8	250.0	–35	4.9	4.9	6.1	26	0.
UNITED HEALTHCARE UNH	4992.0**	7	19562.0	13	157.0	19	568.0	6	3.1	2.8	14.7	18	3.
(D) MEDICAL PRODUCTS													
GROUP COMPOSITE	**15352.8**	**11**	**59740.4**	**15**	**1707.6**	**104**	**7198.3**	**61**	**11.1**	**6.0**	**22.9**	**33**	**1.**
BARD (C.R.) BCR	270.7	1	1036.5	–11	33.2	–80	118.1	–53	12.3	60.8	20.6	18	2.
BAUSCH & LOMB BOL	466.6	9	1756.1	10	17.2	–54	102.7	85	3.7	8.8	8.3	35	1.
BAXTER INTERNATIONAL BAX	1769.0	10	6380.0	12	231.0	14	779.0	183	13.1	12.6	23.8	23	2.
BECTON, DICKINSON BDX [3]	859.2	12	3508.6	10	75.3	–1	274.9	11	8.8	9.9	15.6	24	1.
BOSTON SCIENTIFIC BSX	717.0	0	2842.0	27	107.0	51	371.0	NM	14.9	9.9	21.5	22	0
GUIDANT GDT	576.1	16	2352.3	23	95.5	176	344.5	NM	16.6	6.9	47.3	58	1
INVACARE IVC	256.6	22	878.3	10	7.0	–51	41.5	–9	2.7	6.8	13.4	14	1
JOHNSON & JOHNSON JNJ	6877.0	6	27471.0	14	754.0	639	4167.0	39	11.0	1.6	26.9	27	2
MALLINCKRODT MKG [6]	681.8**	7	2649.2	5	46.8	33	190.6	75	6.9	5.5	18.0	10	2
MEDTRONIC MDT [8]	1160.5**	18	4423.3	18	257.5	120	629.3	5	22.2	11.9	16.3	88	0
OWENS & MINOR OMI	861.0	20	3186.4	3	8.9	34	28.0	39	1.0	0.9	16.0	11	0
STRYKER SYK	559.1	74	2103.7	91	43.8	NM	19.4	–68	7.8	NM	3.1	NM	0
SYBRON SYB [3]	298.2	20	1153.1	20	30.4	30	132.3	60	10.2	9.4	21.2	22	1
13 HOUSING & REAL ESTATE													
INDUSTRY COMPOSITE	**23917.5**	**16**	**90050.9**	**16**	**1536.5**	**589**	**5482.3**	**42**	**6.4**	**1.1**	**18.4**	**9**	**2.**
(A) BUILDING MATERIALS													
GROUP COMPOSITE	**11588.7**	**11**	**45908.9**	**9**	**836.6**	**NM**	**3326.0**	**64**	**7.2**	**NM**	**26.8**	**10**	**2.**
AMERICAN STANDARD ASD	1754.0	9	7190.0	10	44.0	NM	264.0	439	2.5	NM	NM	10	3
HUSSMANN INTERNATIONAL HSM	357.4	2	1315.0	8	21.2	–1	60.2	5	5.9	6.1	25.6	12	1
JOHNS MANVILLE JM	537.8	17	2161.8	21	70.6	62	261.8	41	13.1	9.5	32.7	6	1
LAFARGE LAF	692.0	10	2654.4	8	76.8	16	275.4	17	11.1	10.6	16.8	6	3
MARTIN MARIETTA MATERIALS MLM	335.1	19	1258.8	19	32.6	6	125.8	9	9.7	10.9	16.2	15	2
OWENS CORNING OWC	1275.0	1	5048.0	1	61.0	NM	270.0	NM	4.8	NM	NM	3	4
PPG INDUSTRIES PPG	2053.0	15	7757.0	3	162.0	0	568.0	–29	7.9	9.1	18.3	16	3
RPM RPM [7]	500.4	20	1844.3	11	20.4	–6	69.2	–24	4.1	5.2	9.4	16	0
SHERWIN-WILLIAMS SHW	1146.4	3	5003.8	1	56.0	18	303.9	11	4.9	4.3	18.0	11	1
SOUTHDOWN SDW	331.0**	10	1271.8	7	55.0	–7	213.4	71	16.6	19.7	25.6	10	5
TECUMSEH PRODUCTS TECUA	413.5	5	1814.3	4	29.5	NM	142.0	91	7.1	NM	14.0	7	7
USG USG	930.0	15	3600.0	15	115.0	25	421.0	27	12.4	11.4	48.6	4	8
VALSPAR VAL [2]	367.1	19	1387.7	20	24.1	15	82.1	14	6.6	6.8	20.9	17	1
VULCAN MATERIALS VMC	605.6	37	2355.8	33	64.8	9	239.7	–6	10.7	13.4	18.1	18	2
WATSCO WSO	290.4	10	1246.3	17	3.7	–23	29.5	9	1.3	1.8	9.5	10	0
(B) CONSTRUCTION & REAL ESTATE													
GROUP COMPOSITE	**12328.8**	**21**	**44142.0**	**26**	**699.9**	**22**	**2156.2**	**18**	**5.7**	**5.6**	**12.4**	**8**	**2**
BEAZER HOMES USA BZH [3]	308.7	28	1460.7	37	7.5	61	39.8	53	2.4	1.9	15.9	4	4
CENTEX CTX [9]	1429.2**	14	5775.9	22	63.2	7	255.3	23	4.4	4.7	19.5	5	4
CLAYTON HOMES CMH [6]	309.2	–3	1356.9	9	35.2	1	157.5	9	11.4	11.0	16.0	8	1
EQUITY OFFICE PROPERTIES TRUST EOP	500.2	6	1956.1	16	146.2	49	441.9	24	29.2	20.7	6.3	17	1

PORATE SCOREBOARD

MPANY SYMBOL	SALES 4TH QUARTER 1999 $ MIL	CHANGE FROM 1998 %	SALES 12 MONTHS 1999 $ MIL	CHANGE FROM 1998 %	PROFITS 4TH QUARTER 1999 $ MIL	CHANGE FROM 1998 %	PROFITS 12 MONTHS 1999 $ MIL	CHANGE FROM 1998 %	MARGINS 4TH QUARTER 1999 %	MARGINS 4TH QUARTER 1998 %	RETURN ON COMMON EQUITY 12 MONTHS ENDING 12/31 %	PRICE/EARNINGS RATIO 2/25	12 MONTHS EARNINGS PER SHARE
TWOOD ENTERPRISES FLE [8]	1010.1	13	3719.0	13	29.8	4	101.9	-8	2.9	3.5	17.9	6	2.81
TON (D.R.) DHI [3]	809.0	22	3304.6	37	42.5	30	169.6	57	5.3	5.0	20.3	5	2.65
IANIAN ENTERPRISES HOV [2]	298.8**	12	948.3	1	8.9	18	30.9	18	3.0	2.8	13.1	[illegible]	1.45
S LANG LASALLE JLL	278.9	147	749.2	149	15.2	29	-94.8	NM	5.5	10.5	-29.3	NM	-4.20
MAN & BROAD HOME KBH [1]	1222.8	48	3836.3	57	64.5	54	147.5	55	5.3	5.1	21.8	7	3.08
AR LEN [1]	970.1**	18	3118.5	29	59.8	-11	172.7	20	6.2	8.2	19.6	6	2.74
C. HOLDINGS MDC	460.2	20	1565.0	24	26.5	58	89.4	73	5.8	4.4	23.0	[illegible]	3.95
CHOTTENSTEIN HOMES MHO	255.0	7	852.4	15	11.2	35	41.6	50	4.4	3.5	21.4	3	4.68
NVR	510.5**	27	2006.6	29	24.3	62	108.9	65	4.8	3.7	54.3	5	9.01
VOOD HOMES OH [3]	323.5**	-17	1523.3	-6	14.9	NM	-57.6	NM	NM	2.9	-11.0	NM	-1.23
E PHM	1240.6**	37	3730.3	30	69.8	83	178.3	76	5.6	4.2	16.3	4	4.07
ND GROUP RYL	595.6	10	2009.3	14	20.8	19	66.7	53	3.5	3.2	17.1	4	4.30
DARD PACIFIC SPF	378.7	20	1201.1	58	21.3	2	67.6	43	5.6	6.6	18.4	4	2.27
BROTHERS TOL [2]	441.7**	18	1455.5	21	33.4	20	103.0	20	7.6	7.5	16.7	[illegible]	2.75
HOME UH	490.4	19	1824.5	22	20.8	25	72.4	14	4.2	4.0	12.5	5	5.30
I (DEL) WBB [6]	495.6**	40	1748.5	37	13.7	2	63.7	35	2.8	3.8	15.2	5	3.41
LEISURE TIME INDUSTRIES													
STRY COMPOSITE	39467.2	7	140163.8	12	2465.9	3	8491.5	-4	6.2	6.5	11.0	31	0.98
ATING PLACES													
UP COMPOSITE	9217.3	2	34795.9	19	726.6	20	2990.7	26	7.9	6.7	26.0	20	1.54
CER INTERNATIONAL EAT [6]	520.9	17	2026.4	19	25.4	44	100.1	30	4.9	4.0	14.8	17	1.48
GROUP CBRL [5]	422.6	20	1602.7	18	14.5	-45	58.5	-45	3.4	7.4	7.3	9	0.99
ESTAURANTS CKR [11]	453.6	-1	1946.0	9	3.0	-81	45.9	-38	0.7	3.5	7.4	[illegible]	0.87
EN RESTAURANTS DRI [7]	848.2	7	3558.5	4	24.5	54	161.2	33	2.9	2.0	16.7	14	1.17
NALD'S MCD	3372.9	5	13259.3	7	486.2	40	1947.9	26	14.4	10.8	20.5	26	1.39
KHO MARRIOTT SERVICES SDH [4]	1288.0	7	4581.0	NA	28.0	-3	50.0	NA	2.2	2.4	NM	14	0.80
N GLOBAL RESTAURANTS YUM	2311.0	-9	7822.0	-8	145.0	-4	627.0	41	6.3	6.0	NM	7	3.92
NTERTAINMENT													
IP COMPOSITE	13098.4	9	45643.3	9	664.5	-9	1315.6	-43	5.1	6.0	3.3	87	0.35
ENTERTAINMENT AEN [9]	285.0	10	1139.5	13	-8.9	NM	-45.2	NM	NM	NM	-43.7	NM	-1.68
Y (WALT) DIS [3]	6830.0	5	23643.0	2	356.0	-43	1034.0	-40	5.2	9.5	4.9	79	0.47
NTERTAINMENT GROUP FOX [6]	2436.0	-5	7937.0	0	94.0	-10	180.0	-25	3.9	4.1	2.2	NM	0.25
AH'S ENTERTAINMENT HET	747.6	42	3024.4	51	59.2	280	219.5	80	7.9	3.0	14.2	13	1.71
ALAY RESORT GROUP MBG [11]†	516.4	43	1792.7	31	28.8	21	84.1	18	5.6	6.6	7.0	15	0.92
D-GOLDWYN-MAYER MGM	372.2	-3	1142.4	-8	15.2	NM	-530.9	NM	4.1	NM	-38.8	NM	-3.36
GRAND MGG	420.9	104	1385.6	88	39.9	88	95.1	38	9.5	10.3	9.2	27	1.58
E RESORTS MIR	640.3	25	2402.7	61	63.4	NM	141.0	65	9.9	NM	6.7	17	0.70
PLACE ENTERTAINMENT PPE	850.0	19	3176.0	10	17.0	183	138.0	-1	2.0	0.8	3.7	24	0.45
OTEL & MOTEL													
P COMPOSITE	3929.3	10	13192.1	11	139.3	3	646.7	10	3.5	3.8	19.7	18	1.04
N HOTELS HLT	816.0	7	3161.0	10	25.0	14	216.0	10	3.1	2.9	93.6	13	0.58
IOTT INTERNATIONAL MAR	2807.0	11	8739.0	10	114.0	0	424.0	9	4.1	4.5	15.0	20	1.60
TAR HOTELS & RESORTS MMH	306.3**	4	1292.1	19	0.3	NM	6.7	103	0.1	NM	14.9	14	0.24
THER LEISURE													
P COMPOSITE	13222.3	7	46532.4	11	935.6	0	3538.5	-1	7.1	7.5	16.2	22	1.54
CAN GREETINGS AM [10]	623.4	-2	2159.6	-2	53.9	-28	96.3	-46	8.6	11.7	7.8	15	1.33
SWICK BC	1021.0	5	4283.8	9	-119.9	NM	37.9	-79	NM	3.3	2.6	45	0.41
VAL CCL [1]	791.2	9	3497.5	16	251.0	14	1027.2	23	31.7	30.3	18.4	25	1.66
IAN KODAK EK	3799.0	7	14089.0	5	475.0	75	1392.0	0	12.5	7.6	35.8	14	4.33
Y-DAVIDSON HDI	670.9**	18	2480.6	19	74.2	22	267.2	25	11.1	10.7	23.0	41	1.73
O HAS	1591.1	22	4232.3	28	57.7	-56	189.0	-8	3.6	10.1	10.1	16	0.93
R WORLDWIDE LR [6]	352.7	-5	1429.0	NA	11.8	-56	52.2	NA	3.3	7.3	NA	NA	NA
L MAT	1770.6	-3	5515.0	-2	-18.4	NM	-82.4	NM	NM	4.9	-4.3	NM	-0.21
LAND STORES MLG	722.6	3	1891.8	2	54.8	10	58.4	53	7.6	7.1	53.4	4	1.60
IS INDUSTRIES PII	370.1	12	1321.1	12	24.9	10	76.3	146	6.7	6.9	49.0	10	3.07
OID PRD	649.8	20	1978.6	7	28.5	NM	8.7	NM	4.4	NM	2.3	NM	0.20
CARIBBEAN CRUISES RCL	584.0	2	2546.2	-3	38.3	64	383.9	16	6.6	4.1	12.3	22	2.06
WORLD ENTERTAINMENT TWMC [11]	276.0	2	1108.1	8	3.8	1	31.9	4	1.4	1.4	7.2	11	0.62
MANUFACTURING													
STRY COMPOSITE	51544.8	6	196204.1	4	2871.7	31	9505.4	3	5.6	4.5	14.3	29	1.89
NERAL MANUFACTURING													
P COMPOSITE	21075.6	7	80360.5	10	1278.3	31	3423.7	-18	6.1	5.0	12.9	35	1.61
D POWER APW [4]	462.2	6	1777.5	28	23.7	44	86.7	262	5.1	3.8	19.5	11	2.16
INDUSTRIES BTH [11]	294.4	22	1020.8	24	29.9	22	87.4	26	10.2	10.2	24.5	13	1.78
R MFG. BBR	254.7	3	973.2	1	4.9	NM	25.8	270	1.9	NM	16.1	[illegible]	[illegible]
LE CSL	394.6	4	1611.3	6	21.3	12	95.8	13	5.4	5.0	20.0	10	[illegible]
IG GLW	1259.7**	34	4338.1	23	135.3	30	476.9	46	10.7	11.1	21.4	89	1.93
CR	364.2	[illegible]	1553.7	[illegible]	14.0	54	100.9	-19	3.9	7.6	17.8	13	1.50

COMPANY SYMBOL	SALES 4TH QUARTER 1999 $ MIL.	SALES CHANGE FROM 1998 %	SALES 12 MONTHS 1999 $ MIL.	SALES CHANGE FROM 1998 %	PROFITS 4TH QUARTER 1999 $ MIL.	PROFITS CHANGE FROM 1998 %	PROFITS 12 MONTHS 1999 $ MIL.	PROFITS CHANGE FROM 1998 %	MARGINS 4TH QUARTER 1999 %	MARGINS 4TH QUARTER 1998 %	RETURN ON COMMON EQUITY 12 MONTHS ENDING 12-31	PRICE-EARNINGS RATIO 2-10	MON EARN PER SH
DANAHER DHR	848.2	2	3197.2	5	74.3	22	261.6	36	8.8	7.3	15.9	23	[illegible]
DELCO REMY INTERNATIONAL RMY [5]	277.2	19	998.1	19	8.0	48	30.9	NM	2.9	2.3	26.4	6	[illegible]
EXIDE EX [9]	618.5	–9	2243.8	–5	–3.6	NM	–88.7	NM	NM	NM	–63.0	NM	–4
FEDERAL SIGNAL FSS	282.2	4	1061.9	6	17.0	5	57.5	-3	6.0	6.0	16.5	13	1
FLOWSERVE FLS	262.7	–6	1061.3	–2	–11.6	NM	12.2	–74	NM	2.6	3.9	42	0
FORTUNE BRANDS FO	1367.9	7	5122.9	7	101.2	6	–890.6	NM	7.4	7.5	–33.3	NM	–5
GRIFFON GFF [3]	280.8	9	1054.9	12	9.7	36	22.8	–18	3.5	2.8	9.1	10	0
HARSCO HSC	457.5	6	1716.7	–1	26.0	8	90.7	–16	5.7	5.6	14.0	12	2
HEXCEL HXL	268.6	–12	1151.5	6	–2.7	NM	–23.3	NM	NM	0.6	–8.6	NM	–0
HILLENBRAND INDUSTRIES HB [1]	526.0	–1	2047.0	2	21.0	–61	124.0	–33	4.0	10.2	14.0	17	1
JOHNSON CONTROLS JCI [3]	4318.3	11	16584.6	24	99.0	24	438.9	25	2.3	2.1	18.9	13	4
MINNESOTA MINING & MFG. MMM	4023.0	6	15659.0	4	444.0	78	1763.0	45	11.0	6.6	28.0	20	4
NCI BUILDING SYSTEMS NCS [2]	261.1	3	936.6	39	17.0	23	46.9	26	6.5	5.4	16.9	6	2
NEWELL RUBBERMAID NWL	1690.1	2	6413.1	4	71.6	12	95.4	–80	4.2	3.8	3.5	78	0
PARKER HANNIFIN PH [6]	1239.2	3	5022.6	4	75.0	18	317.4	1	6.0	5.3	16.1	13	2
TELEFLEX TFX	410.4	6	1601.1	11	27.3	8	95.2	15	6.7	6.6	15.8	12	2
TOWER AUTOMOTIVE TWR	604.6	29	2170.0	18	32.6	20	117.1	33	5.4	5.8	16.1	6	2
TUPPERWARE TUP	309.7	–1	1043.8	–4	43.4	17	79.0	14	14.0	11.9	68.4	13	1
(B) MACHINE & HAND TOOLS													
GROUP COMPOSITE	**4052.6**	**3**	**14741.4**	**0**	**236.2**	**21**	**741.9**	**NM**	**5.8**	**5.0**	**18.0**	**12**	**2**
BLACK & DECKER BDK	1347.2	6	4520.5	–1	115.1	26	300.3	NM	8.5	7.2	37.5	11	3
KENNAMETAL KMT [6]	453.9	–6	1834.5	–7	8.5	–39	36.1	–45	1.9	2.9	4.8	20	1
LINCOLN ELECTRIC HOLDINGS LECO	263.9	–7	1086.2	–8	23.0	7	73.9	–21	8.7	7.5	16.4	12	1
NACCO INDUSTRIES NC	730.3	–1	2602.8	3	18.1	–43	54.3	–47	2.5	4.3	10.0	7	6
SNAP-ON SNA	566.7	19	1945.6	10	27.4	147	127.2	NM	4.8	2.3	15.4	11	2
STANLEY WORKS SWK	690.6	2	2751.8	1	44.1	71	150.0	9	6.4	3.8	20.4	14	1
(C) SPECIAL MACHINERY													
GROUP COMPOSITE	**23454.9**	**5**	**89008.7**	**0**	**1237.3**	**33**	**4847.1**	**–4**	**5.3**	**4.2**	**14.8**	**29**	**2**
AGCO AG	597.7	–21	2413.3	–18	–27.3	NM	–11.5	NM	NM	NM	–1.4	NM	–[illegible]
APPLIED MATERIALS AMAT [2]	1565.5	133	4859.1	20	274.7	NM	725.7	151	17.5	NM	16.7	95	1
BRIGGS & STRATTON BGG [6]	422.2	17	1639.0	14	41.1	67	143.9	56	9.7	6.8	35.3	6	6
CATERPILLAR CAT	5019.0	–7	19702.0	–6	239.0	–21	946.0	–37	4.8	5.6	17.3	14	2
CUMMINS ENGINE CUM	1836.0	14	6639.0	6	25.0	–14	160.0	NM	1.4	1.8	11.2	9	4
DEERE DE [2]	2788.4**	–13	11750.9	–15	–29.5	NM	239.2	–77	NM	5.0	5.8	37	1
DOVER DOV	1248.3	23	4446.4	12	121.0	47	405.1	24	9.7	8.1	20.3	20	1
FMC FMC	1031.2	–8	4110.6	–6	52.8	49	216.0	17	5.1	3.2	29.4	8	6
ILLINOIS TOOL WORKS ITW	2487.3	10	9333.2	11	180.0	–20	841.1	4	7.2	10.0	15.2	21	2
INGERSOLL-RAND IR	1887.5	4	7666.7	4	141.2	11	544.9	20	7.5	7.0	18.3	12	3
ITT INDUSTRIES IIN	1239.8	2	4617.7	4	69.8	12	230.0	58	5.6	5.1	21.7	12	2
LAM RESEARCH LRCX [6]	288.6	103	894.1	18	36.7	NM	58.0	NM	12.7	NM	12.0	NM	1
METTLER-TOLEDO INTERNATIONAL MTD	304.3	14	1065.5	14	12.9	–23	48.1	28	4.2	6.3	42.9	32	[illegible]
MILACRON MZ	438.7	1	1624.7	7	22.3	–6	70.1	–7	5.1	5.4	14.7	7	[illegible]
PENTAIR PNR	785.1	50	2367.8	22	43.0	31	103.3	–3	5.5	6.3	13.8	15	2
TIMKEN TKR	631.9	–3	2495.0	–7	21.3	62	62.6	–45	3.4	2.0	6.0	15	[illegible]
TORO TTC [2]	265.8**	16	1275.0	15	–0.2	NM	35.1	757	NM	NM	12.5	12	2
UNOVA UNA	617.6	7	2108.7	27	13.4	–66	29.6	–58	2.2	6.8	4.0	22	[illegible]
(D) TEXTILES													
GROUP COMPOSITE	**2961.7**	**0**	**12093.5**	**1**	**119.9**	**39**	**492.7**	**34**	**4.0**	**2.9**	**17.1**	**10**	**1**
BURLINGTON INDUSTRIES BUR [3]	371.0	–9	1615.6	–17	–5.3	NM	–44.8	NM	NM	2.0	–7.2	NM	–[illegible]
DEXTER DEX	255.4	–13	1041.7	–11	13.9	NM	107.5	239	5.5	NM	23.2	8	[illegible]
SHAW INDUSTRIES SHX	1003.9	5	4107.7	16	47.8	79	228.0	NM	4.8	2.8	26.2	7	[illegible]
SPRINGS INDUSTRIES SMI	528.6	4	2220.4	2	22.4	71	69.0	85	4.2	2.6	8.9	10	[illegible]
UNIFI UFI [6]	317.6	–1	1224.8	–9	10.2	–55	29.0	–74	3.2	7.0	4.5	21	[illegible]
WESTPOINT STEVENS WXS	485.2	3	1883.3	6	30.8	6	104.1	15	6.3	6.2	NM	[illegible]	
16 METALS & MINING													
INDUSTRY COMPOSITE	**20240.6**	**10**	**74683.4**	**–1**	**451.6**	**400**	**1691.0**	**–40**	**2.2**	**0.5**	**5.7**	**35**	[illegible]
(A) ALUMINUM													
GROUP COMPOSITE	**5611.1**	**1**	**21118.8**	**0**	**396.9**	**129**	**1178.1**	**17**	**7.1**	**3.1**	**14.0**	**24**	**2**
ALCOA AA	4253.1	1	16322.8	6	333.9	53	1054.1	24	7.9	5.2	16.8	23	[illegible]
REYNOLDS METALS RLM	1358.0**	–2	4796.0	–18	63.0	NM	124.0	–18	4.6	NM	5.8	32	[illegible]
(B) STEEL													
GROUP COMPOSITE	**9674.7**	**9**	**36322.5**	**–5**	**78.4**	**–66**	**206.8**	**–86**	**0.8**	**2.6**	**1.1**	**84**	[illegible]
AK STEEL HOLDING AKS	1091.5	7	4284.8	6	–6.3	NM	71.3	–64	NM	6.3	5.6	14	[illegible]
BETHLEHEM STEEL BS	1012.2	0	3914.8	–13	–38.1	NM	–183.2	NM	NM	NM	–17.1	NM	–[illegible]
CARPENTER TECHNOLOGY CRS [6]	250.8	1	1027.1	–10	12.7	4	35.6	–51	5.1	4.9	5.5	15	[illegible]
COMMERCIAL METALS CMC [4]	612.4	12	2315.0	–2	10.2	–7	46.3	1	1.7	2.0	10.9	10	[illegible]
LTV LTV	1135.0	15	4120.0	–4	–67.0	NM	–212.0	NM	NM	NM	–14.6	NM	–[illegible]
NATIONAL STEEL NS	759.9	11	2849.6	0	–6.8	NM	–43.1	NM	NM	2.7	–5.2	NM	–[illegible]

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NUCOR NUE	1091.7	25	4009.3	–3	97.6	59	244.6	–7	8.9	7.0	11.2	16	2.3
ROUGE INDUSTRIES ROU	299.3	11	967.6	–17	–10.5	NM	–47.8	NM	NM	2.8	–11.7	NM	–2.
RYERSON TULL RT	677.2	8	2763.5	–1	8.7	53	38.4	–20	1.3	0.9	5.6	11	1.5
TEXAS INDUSTRIES TXI [7]	322.1	12	1173.1	–4	10.7	–53	65.7	–37	3.3	7.9	10.0	12	2.9
USX-U.S. STEEL GROUP X	1462.0	8	5314.0	–15	34.0	–55	51.0	–86	2.3	5.6	2.0	48	0.4
WALTER INDUSTRIES WLT [7]	487.3	–5	1730.0	–10	8.5	–57	43.4	–21	1.7	3.8	12.6	9	0.9
WORTHINGTON INDUSTRIES WTHG [7]	473.3	8	1853.6	10	24.7	35	96.6	20	5.2	4.2	13.8	13	1.
(C) OTHER METALS GROUP COMPOSITE	**4954.8**	**28**	**17242.0**	**11**	**–23.7**	**NM**	**306.1**	**–22**	**NM**	**NM**	**3.9**	**58**	**0.3**
BELDEN BWC	258.3	63	818.6	23	14.0	498	41.0	14	5.4	1.5	16.6	13	1.6
COMMONWEALTH INDUSTRIES CMIN	260.6	14	1045.9	8	1.4	–35	11.0	NM	0.5	0.9	3.3	14	0.6
ENGELHARD EC	1112.7**	2	4404.9	6	49.7	4	197.5	6	4.5	4.4	25.8	11	1.4
FREEPORT-McMORAN COPPER & GOLD FCX	527.5	9	1887.3	7	46.8	–8	136.5	–11	8.9	10.5	NM	29	0.6
GENERAL CABLE BGC	709.3	172	2088.4	82	–4.8	NM	34.2	–52	NM	6.7	17.4	9	0.9
MUELLER INDUSTRIES MLI	299.7	13	1168.7	26	25.8	46	99.3	32	8.6	6.7	17.4	13	2.5
NEWMONT MINING NEM	428.1	22	1398.9	–4	46.8	NM	24.8	NM	10.9	NM	1.7	NM	0.
OLIN OLN	341.1	2	1314.8	–8	9.2	0	16.2	–57	2.7	2.7	5.2	43	0.
PHELPS DODGE PD	1017.5	44	3114.4	2	–212.7	NM	–254.3	NM	NM	NM	–7.8	NM	–4
17 NONBANK FINANCIAL													
INDUSTRY COMPOSITE	**169500.6**	**16**	**640178.0**	**11**	**16521.6**	**45**	**62987.8**	**22**	**9.7**	**7.8**	**18.3**	**16**	**3.0**
(A) FINANCIAL SERVICES GROUP COMPOSITE	**98941.5**	**21**	**373619.2**	**13**	**11164.2**	**76**	**40403.2**	**42**	**11.3**	**7.8**	**23.0**	**17**	**3.1**
ADVANCE PARADIGM ADVP [9]	553.4	176	1633.6	134	5.3	64	18.5	64	1.0	1.6	23.3	33	0.
AFFILIATED MANAGERS GROUP AMG	286.6	257	518.7	118	44.7	380	72.2	183	15.6	11.6	16.3	13	3.
AMERICAN EXPRESS AXP	5227.0**	15	19483.0	13	606.0	14	2475.0	16	11.6	11.6	25.4	29	5.
ASSOCIATES FIRST CAPITAL AFS	3156.2	24	12131.2	29	408.7	23	1490.4	22	12.9	13.0	15.2	9	2.
BEAR STEARNS BSC [6]	2539.1	31	8585.2	10	245.1	80	876.0	63	9.7	7.0	19.9	7	5.
CAPITAL ONE FINANCIAL COF	1105.2	46	3965.8	53	97.9	35	363.1	32	8.9	9.6	24.0	19	1.
CHICAGO TITLE CTZ	519.3	–6	2059.0	7	27.3	4	105.8	20	5.3	4.8	21.3	9	4.
CIT GROUP CIT	1015.5	71	2916.7	28	104.3	19	389.4	15	10.3	14.7	7.0	7	2.
CITIGROUP C	20951.0	8	82005.0	7	2622.0	287	9994.0	72	12.5	3.5	22.0	19	2.
COUNTRYWIDE CREDIT INDUSTRIES CCR [10]	782.6	–14	3560.4	8	100.6	3	412.0	12	12.9	10.8	14.8	7	3.
DAIN RAUSCHER DRC	284.4	27	1015.1	24	11.8	NM	66.6	733	4.1	NM	17.8	11	4.
DONALDSON, LUFKIN & JENRETTE DLJ	3102.5	56	10395.9	23	191.2	179	600.7	62	6.2	3.5	17.3	11	4.
EDWARDS (A.G.) AGE [10]	714.6	36	2596.7	19	115.3	70	358.0	24	16.1	13.0	20.6	9	3.
EQUIFAX EFX	464.2	3	1772.7	9	61.8	39	215.9	12	13.3	9.9	109.0	14	1.
FANNIE MAE FNM	9939.6	21	36968.6	17	1038.4	15	3921.1	14	10.4	10.9	27.0	15	3.
FINOVA GROUP FNV	374.8	22	1346.7	21	56.6	48	215.2	34	15.1	12.4	12.9	9	3.
FRANKLIN RESOURCES BEN [3]	565.7**	0	2260.5	–10	137.5	101	495.7	13	24.3	12.1	18.7	17	1.
FREDDIE MAC FRE	6554.0	25	24268.0	34	594.0	27	2218.0	30	9.1	8.9	25.8	15	2.
GOLDMAN SACHS GROUP GS [1]	6712.0	57	25363.0	13	723.0	NM	2708.0	12	10.8	1.0	31.5	16	5.
HELLER FINANCIAL HF	459.0	28	1602.0	16	110.0	134	284.0	47	24.0	13.1	13.2	7	2.
HOUSEHOLD INTERNATIONAL HI	2567.6	14	9499.1	9	438.8	25	1486.4	184	17.1	15.5	23.7	11	3.
KNIGHT/TRIMARK GROUP NITE	256.4**	115	800.7	125	58.4	233	167.8	231	22.8	14.7	36.2	23	1.
LEGG MASON LM [9]	342.7	32	1248.1	24	33.3	82	119.3	35	9.7	7.0	18.3	19	2.
LEHMAN BROTHERS HOLDINGS LEH [1]	4701.0**	24	18989.0	–5	301.0	307	1132.0	54	6.4	1.9	20.0	8	8.
MARSH & McLENNAN MMC	2334.0	20	9157.0	27	47.0	–75	726.0	–9	2.0	9.6	17.0	33	2.
MERRILL LYNCH MER	9270.0	18	34879.0	1	764.0	113	2618.0	108	8.2	4.6	22.1	15	6.
METRIS MXT	259.4	111	859.9	101	34.0	103	115.4	101	13.1	13.6	30.9	NM	–0.
MORGAN STANLEY DEAN WITTER MWD [1]	8883.0	17	36044.0	16	1633.0	33	4791.0	41	18.4	16.1	32.0	16	4.
PAINEWEBBER GROUP PWJ	2068.3**	19	7822.8	8	166.3	66	628.6	45	8.0	5.8	21.6	11	3.
PRICE (T. ROWE) ASSOCIATES TROW	284.9**	21	1036.4	17	70.1	56	239.4	37	24.6	19.2	34.1	19	1.
SCHWAB (CHARLES) SCH	1352.2	41	4713.2	39	170.5	60	588.9	69	12.6	11.1	28.6	55	0.
SLM HOLDING SLM	946.8	34	3259.4	6	142.0	29	500.8	0	15.0	15.6	73.9	11	3.
UNICAPITAL UCP	368.4	14	862.8	30	4.4	–76	10.0	–82	1.2	5.7	1.2	14	0.
(B) INSURANCE GROUP COMPOSITE	**62942.2**	**10**	**237351.8**	**9**	**4471.1**	**–3**	**18822.0**	**–6**	**7.1**	**8.1**	**12.9**	**16**	**2.**
AETNA AET	7745.9	35	26452.7	28	134.5	–42	716.9	–18	1.7	4.0	6.0	9	4
AFLAC AFL	2365.0	22	8640.0	22	102.0	–12	571.0	17	4.3	6.0	15.1	20	2
ALLSTATE ALL	7009.0	9	26959.0	4	425.0	–44	2720.0	–17	6.1	11.8	17.1	6	3
AMERICAN GENERAL AGC	2670.0	2	10679.0	4	257.0	NM	1131.0	48	9.6	0.0	15.8	12	4
AMERICAN INTERNATIONAL GROUP AIG	10200.9	14	37725.7	14	1312.2	17	5055.4	18	12.9	12.5	15.7	29	3
AON AOC	1878.0	10	7070.0	9	13.0	–91	352.0	–35	0.7	8.2	11.1	18	1
AXA FINANCIAL AXF	3717.3	40	13370.6	22	254.3	43	1098.0	32	6.8	6.7	19.2	13	2
CIGNA CI	4898.0	9	18781.0	6	292.0	25	699.0	–41	6.0	5.2	11.5	22	3
CINCINNATI FINANCIAL CINF	511.9	1	2128.2	4	46.9	3	254.7	5	9.2	9.0	5.0	19	1
COMMERCE GROUP CGI	257.7	20	985.5	16	38.1	75	102.6	6	14.8	10.2	15.9	9	2
HARTFORD FINANCIAL SERVICES GROUP HIG	3436.0	–17	13528.0	–10	223.0	–26	862.0	–15	6.5	7.2	14.9	9	3
HARTFORD LIFE HLI	1424.0	–27	5536.0	–4	128.0	19	467.0	21	9.0	5.6	20.2	11	3

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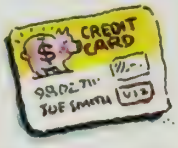

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JEFFERSON-PILOT JP	615.8	0	2560.3	–2	108.4	13	469.4	12	17.6	15.6	16.3	13	4.4
LIBERTY FINANCIAL L	308.2**	0	1218.7	0	24.0	–19	99.3	–20	7.8	9.7	8.3	9	2.0
LINCOLN NATIONAL LNC	1807.9	5	6803.7	12	34.6	–72	460.4	–10	1.9	7.3	9.9	14	2.3
MERCURY GENERAL MCY	324.8	7	1279.9	5	33.0	–4	133.7	–25	10.2	11.3	14.5	10	2.4
NATIONWIDE FINANCIAL SERVICES NFS	761.2	19	2814.3	13	98.8	17	381.3	15	13.0	13.2	15.3	9	2.9
OHIO CASUALTY OCAS	458.5	23	1900.1	31	4.5	–76	103.7	25	1.0	5.2	9.2	7	1.6
OLD REPUBLIC INTERNATIONAL ORI	514.9	–10	2102.1	–3	49.1	–44	226.8	–30	9.5	15.2	10.1	7	1.7
PROGRESSIVE PGR	1601.9	20	6109.5	16	3.8	–95	295.2	–35	0.2	5.9	10.7	14	3.9
REINSURANCE GROUP OF AMERICA RGA	428.4	4	1607.1	20	19.4	–41	53.0	–41	4.5	7.9	8.2	17	1.1
RELIASTAR FINANCIAL RLR	824.5	13	3037.3	7	71.4	84	253.6	4	8.7	5.3	14.0	12	2.8
SAFECO SAFC	1677.4**	5	6866.2	4	44.5	–54	252.2	–28	2.7	6.0	5.5	12	1.9
ST. PAUL SPC	1942.0**	5	7569.0	–2	155.9	21	636.3	31	8.0	7.0	11.0	8	3.1
TRAVELERS PROPERTY CASUALTY TAP	2746.3	1	10571.8	1	400.9	9	1409.3	5	14.6	13.5	15.9	9	3.6
UNITRIN UNIT	464.6	12	1813.6	–13	60.6	30	201.0	–61	13.0	11.3	11.7	13	2.7
UNUMPROVIDENT UNM	2352.1**	10	9242.5	9	136.1	46	–182.9	NM	5.8	4.3	–3.7	NM	–0.7
(C) SAVINGS & LOAN													
GROUP COMPOSITE	**7616.9**	**10**	**29207.0**	**9**	**886.4**	**110**	**3762.5**	**17**	**11.6**	**6.1**	**17.1**	**8**	**2.6**
ASTORIA FINANCIAL ASFC	395.6**	18	1582.0	23	59.5	NM	235.7	323	15.1	NM	19.2	6	4.3
BANK UNITED BNKU [3]	328.0	21	1184.7	17	31.8	16	114.1	–6	9.7	10.1	14.3	8	3.2
CHARTER ONE FINANCIAL CF	553.5**	–9	2359.1	–2	19.7	–65	335.5	10	3.6	9.3	12.3	12	1.5
DIME BANCORP DME	518.3**	5	1987.3	2	62.3	1	243.9	1	12.0	12.5	16.1	6	2.1
GOLDEN STATE BANCORP GSB	1041.4**	10	4071.1	35	84.6	460	320.7	–19	8.1	1.6	20.5	6	2.2
GOLDEN WEST FINANCIAL GDW	777.4**	2	2969.1	–4	119.2	6	480.0	7	15.3	14.7	15.0	10	2.8
GREENPOINT FINANCIAL GPT	390.6**	20	1482.5	20	58.9	62	215.6	36	15.1	11.1	10.9	8	2.7
WASHINGTON MUTUAL WM	3612.2**	14	13571.2	6	450.3	187	1817.1	22	12.5	5.0	20.1	7	3.1
18 OFFICE EQUIPMENT & COMPUTERS													
INDUSTRY COMPOSITE	**125206.2**	**7**	**457486.9**	**14**	**11480.7**	**5**	**40719.0**	**57**	**9.2**	**9.4**	**20.9**	**63**	**1.1**
(A) BUSINESS MACHINES & SERVICES													
GROUP COMPOSITE	**10656.6**	**0**	**39425.6**	**20**	**691.6**	**40**	**2069.7**	**25**	**6.5**	**5.2**	**23.3**	**14**	**2.1**
DELUXE DLX	411.5	–17	1650.5	–15	58.2	1	203.0	42	14.1	11.5	42.3	10	2.6
DIEBOLD DBD	365.9	14	1259.2	6	35.5	3	128.9	69	9.7	10.7	17.0	12	1.8
HON INDUSTRIES HNI	469.4	10	1789.3	5	24.6	–17	87.4	–18	5.2	6.9	17.4	13	1.4
MILLER (HERMAN) MLHR [7]	464.1	0	1790.9	–1	33.0	–15	137.1	–4	7.1	8.4	49.9	13	1.6
NCR NCR	1761.0	–15	6196.0	–5	235.0	380	337.0	176	13.3	2.4	20.9	12	3.3
PITNEY BOWES PBI	1188.0	7	4432.6	8	177.1	15	659.2	22	14.9	13.9	40.6	19	2.4
REYNOLDS & REYNOLDS REY [3]	418.0	18	1625.5	10	31.3	36	125.2	13	7.5	6.5	27.0	18	1.9
STEELCASE SCS [10]	881.0	28	3083.3	12	45.3	–21	187.5	–18	5.1	8.3	12.0	9	1.3
TECH DATA TECD [11]	4310.1	31	16065.2	64	33.0	–3	126.9	7	0.8	1.0	12.4	10	2.3
WALLACE COMPUTER SERVICES WCS [5]	387.6	1	1533.2	3	18.6	9	77.6	11	4.8	4.4	13.2	6	1.4
(B) COMPUTERS & PERIPHERALS													
GROUP COMPOSITE	**77205.5**	**4**	**280397.0**	**11**	**4785.4**	**–19**	**19085.7**	**85**	**6.2**	**7.9**	**21.5**	**47**	**1.4**
APPLE COMPUTER AAPL [3]	2343.0	37	6767.0	11	183.0	20	632.0	53	7.8	8.9	14.8	31	3.
COMPAQ COMPUTER CPQ	10478.0	–4	38525.0	24	332.0	–56	569.0	NM	3.2	7.0	3.8	77	0.
DELL COMPUTER DELL [11]	6784.0	41	23636.0	41	289.0	–25	1655.0	25	4.3	8.0	38.4	65	0.
EMC EMC	1875.8	21	6715.6	24	206.6	–24	1010.6	55	11.0	17.5	20.4	NM	0.
GATEWAY GTW	2451.5	6	8645.6	16	126.0	–2	427.9	24	5.1	5.6	25.9	44	1.
HEWLETT-PACKARD HWP [2]	11362.0	10	42370.0	7	760.0	0	3104.0	16	6.7	7.4	17.0	42	2.
INTERNATIONAL BUSINESS MACHINES IBM	24182.0	–4	87548.0	7	2089.0	–11	7712.0	22	8.6	9.3	38.8	29	4.
LEXMARK INTERNATIONAL GROUP LXK	1003.0	11	3452.3	14	99.7	22	318.5	31	9.9	9.0	48.3	49	2.
MAXTOR MXTR	690.6	–5	2486.1	3	4.0	–87	–50.1	NM	0.6	4.1	–19.6	NM	–0.
MICRON ELECTRONICS MUEI [4]	353.0	–13	1387.3	–12	14.6	25	39.5	–33	4.1	2.9	8.3	26	0.
QUANTUM DLT & STORAGE SYSTEMS DSS [9]	365.8	0	1443.7	24	50.8	NM	181.2	67	13.9	NM	29.8	9	1.
QUANTUM HARD DISK DRIVE GROUP HDD [9]	889.0	–7	3328.4	–10	5.2	NM	–122.8	NM	0.6	NM	–18.0	NM	–1.
SEAGATE TECHNOLOGY SEG [6]	1645.0	–9	6775.0	3	–58.0	NM	1045.0	NM	NM	5.8	35.2	11	4.
SILICON GRAPHICS SGI [6]	648.2	–5	2681.2	–4	9.1	NM	–86.0	NM	1.4	NM	–7.2	NM	–0.
STORAGE TECHNOLOGY STK	622.6	–6	2368.2	5	–25.8	NM	–74.6	NM	NM	8.0	–8.1	NM	–0.
SUN MICROSYSTEMS SUNW [6]	3553.9	27	13150.2	25	353.4	35	1281.9	46	9.9	9.3	21.6	NM	0.
UNISYS UIS	1959.9	–5	7544.6	4	144.4	6	522.8	39	7.4	6.6	27.7	19	1.
WESTERN DIGITAL WDC [6]	560.2	–24	2344.9	–18	–91.5	NM	–504.2	NM	NM	NM	NM	NM	–5.
XEROX XRX	5438.0	–6	19228.0	–1	294.0	–52	1424.0	143	5.4	10.6	29.4	11	1.
(C) COMPUTER SOFTWARE & SERVICES													
GROUP COMPOSITE	**37344.1**	**15**	**137664.3**	**18**	**6003.6**	**32**	**19563.7**	**40**	**16.1**	**14.1**	**20.1**	**85**	**0.**
ACTIVISION ATVI [9]	268.9	39	583.6	54	22.3	42	24.2	135	8.3	8.1	13.7	15	0
ADOBE SYSTEMS ADBE [1]	281.8	14	1015.4	13	97.4	94	237.8	126	34.6	20.4	46.4	50	1
AFFILIATED COMPUTER SERVICES ACS [6]	476.0	22	1810.9	30	26.4	28	98.1	31	5.6	5.3	15.1	22	1
AMERICA ONLINE AOL [6]	1621.0	41	5718.0	49	271.0	136	1026.0	762	16.7	10.0	16.8	NM	0
AUTOMATIC DATA PROCESSING AUD [6]	1492.5**	14	5828.4	11	199.5	30	763.1	20	13.4	11.8	17.7	39	1
BMC SOFTWARE BMCS [9]	426.3	24	1629.3	36	69.1	–37	246.4	–27	16.2	32.0	14.7	46	0

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CORPORATE SCOREBOARD

COMPANY SYMBOL	SALES 4TH QUARTER 1999 $ MIL	SALES CHANGE FROM 1998 %	SALES 12 MONTHS 1999 $ MIL	SALES CHANGE FROM 1998 %	PROFITS 4TH QUARTER 1999 $ MIL	PROFITS CHANGE FROM 1998 %	PROFITS 12 MONTHS 1999 $ MIL	PROFITS CHANGE FROM 1998 %	MARGINS 4TH QUARTER 1999 %	MARGINS 4TH QUARTER 1998 %	RETURN ON COMMON EQUITY 12 MONTHS ENDING 12-31	PRICE-EARNINGS RATIO 2-10	12 MONTH EARNI PER SHA
CABLETRON SYSTEMS CS [10]	371.7	13	1422.9	3	42.6	NM	20.3	NM	11.5	NM	1.8	NM	0.1
CADENCE DESIGN SYSTEMS CDN	268.0	–29	1093.3	–17	–22.5	NM	–14.1	NM	NM	12.6	–1.4	NM	–0.0
CERIDIAN CEN	361.4	17	1342.3	16	36.5	–43	148.9	–9	10.1	20.7	17.7	15	1.0
CISCO SYSTEMS CSCO [5]	3877.0	49	13434.0	46	438.0	–14	2022.0	33	11.3	19.7	14.5	NM	0.5
COMDISCO CDO [3]	877.0**	–4	4111.0	21	42.0	11	52.0	–66	4.8	4.2	4.9	NM	0.3
COMPUSA CPU [6]	1383.7	–21	5883.9	2	–2.0	NM	–84.4	NM	NM	1.2	–25.2	NM	–0.9
COMPUTER ASSOCIATES INTL. CA [9]	1812.0	33	6269.0	23	401.0	13	762.0	34	22.1	26.1	28.4	50	1.3
COMPUTER SCIENCES CSC [9]	2630.1	28	8599.1	14	82.3	–10	367.5	19	3.1	4.5	14.1	39	2.2
COMPUWARE CPWR [9]	637.4	47	2148.7	44	122.9	26	429.4	42	19.3	22.5	37.8	19	1.1
DST SYSTEMS DST	312.2	7	1203.3	10	37.1	471	138.1	93	11.9	2.2	10.8	30	2.1
EDWARDS (J.D.) JDEC [2]	257.6	–16	944.2	1	0.1	NM	–39.2	NM	0.1	12.3	–6.6	NM	–0.3
ELECTRONIC ARTS ERTS [9]	600.7	15	1403.4	22	92.9	28	135.2	104	15.5	13.9	15.6	42	2.0
ELECTRONIC DATA SYSTEMS EDS	4877.4	11	18534.2	10	42.7	–70	420.9	–43	0.9	3.2	9.3	88	0.8
FIRST DATA FDC	1452.3**	8	5520.0	8	658.3	543	1199.7	158	45.3	7.6	35.1	18	2.7
FISERV FISV	374.5	10	1407.5	14	34.9	18	137.9	21	9.3	8.7	13.5	33	1.0
GALILEO INTERNATIONAL GLC	338.6	–2	1526.1	3	23.7	–16	218.2	12	7.0	8.2	55.4	10	2.2
IMATION IMN	371.2	10	1412.6	6	14.3	NM	42.3	NM	3.9	NM	5.8	28	1.1
INFORMIX IFMX	251.1	17	871.5	18	42.8	90	–11.2	NM	17.0	10.5	–1.9	NM	–0.0
MICROSOFT MSFT [6]	6112.0	18	21855.0	27	2436.0	23	8746.0	38	39.9	38.2	25.2	67	1.5
NOVELL NOVL [2]	344.6	16	1272.8	17	73.8	76	190.7	87	21.4	14.1	12.8	70	0.5
ORACLE ORCL [7]	2321.9	13	9328.6	17	384.5	40	1441.9	33	16.6	13.3	42.4	NM	0.4
PEOPLESOFT PSFT	372.3	–9	1429.1	–3	–5.6	NM	–177.8	NM	NM	6.6	–22.1	NM	–0.6
PEROT SYSTEMS PER	290.1	8	1151.6	16	22.3	81	75.5	86	7.7	4.6	21.2	34	0.6
SABRE HOLDINGS TSG	540.0**	–5	2435.0	6	97.0	385	332.0	43	18.0	3.5	29.0	19	2.5
SIEBEL SYSTEMS SEBL	268.0	109	790.9	93	45.0	127	122.1	189	16.8	15.5	25.9	NM	0.5
3COM COMS [7]	1475.0	–4	5688.5	2	177.3	33	492.1	62	12.0	8.6	14.0	47	1.3
19 PAPER & FOREST PRODUCTS													
INDUSTRY COMPOSITE	**27947.1**	**15**	**105584.2**	**9**	**1292.5**	**127**	**4956.7**	**80**	**4.6**	**2.4**	**12.2**	**20**	**2.1**
(A) FOREST PRODUCTS													
GROUP COMPOSITE	**6458.4**	**45**	**23139.6**	**30**	**233.5**	**294**	**1032.9**	**409**	**3.6**	**1.3**	**17.8**	**9**	**3.1**
GEORGIA-PACIFIC GROUP GP	5150.0	52	17790.0	35	175.0	573	716.0	545	3.4	0.8	20.1	9	4.0
LOUISIANA-PACIFIC LPX	712.6	37	2878.6	25	35.4	123	216.8	NM	5.0	3.1	15.9	6	2.0
RAYONIER RYN	296.1	10	1035.9	3	19.3	37	68.7	8	6.5	5.2	10.6	16	2.4
UNIVERSAL FOREST PRODUCTS UFPI	299.7	11	1435.1	16	3.8	17	31.4	19	1.3	1.2	14.7	8	1.4
(B) PAPER													
GROUP COMPOSITE	**21488.7**	**9**	**82444.7**	**5**	**1059.1**	**107**	**3923.8**	**54**	**4.9**	**2.6**	**11.3**	**22**	**2.0**
BOISE CASCADE BCC	1874.3	22	6952.7	13	75.5	NM	199.8	NM	4.0	NM	12.7	11	3.0
BOWATER BOW	525.0	–18	2134.7	7	20.4	–21	78.7	NM	3.9	4.1	4.4	36	1.
CHAMPION INTERNATIONAL CHA	1348.0	0	5268.0	–7	79.0	NM	237.0	216	5.9	NM	7.7	21	2.
CONSOLIDATED PAPERS CDP	473.0	0	1838.8	–8	22.6	19	66.1	–38	4.8	4.0	4.9	36	0.
FORT JAMES FJ	1700.6	1	6827.4	0	2.0	–98	349.6	–29	0.1	5.7	31.0	16	1.
INTERNATIONAL PAPER IP	6300.0	3	24600.0	3	80.0	74	199.0	–19	1.3	0.8	1.9	91	0.
KIMBERLY-CLARK KMB	3425.5	10	13006.8	6	424.0	59	1668.1	50	12.4	8.6	32.5	19	3.
MEAD MEA	949.3	9	3799.5	1	89.6	190	208.1	49	9.4	3.5	8.6	17	1.
POTLATCH PCH	400.8	12	1676.8	7	8.4	115	40.9	10	2.1	1.1	4.4	27	1.
WEYERHAEUSER WY	3433.0	25	12262.0	14	174.0	480	616.0	110	5.1	1.1	12.9	17	2.
WILLAMETTE INDUSTRIES WLL	1059.2	18	4078.0	10	83.6	NM	260.5	193	7.9	0.8	12.2	16	2.
20 PUBLISHING & BROADCASTING													
INDUSTRY COMPOSITE	**17491.2**	**36**	**61171.0**	**32**	**1854.3**	**100**	**6178.6**	**97**	**10.6**	**7.2**	**21.1**	**33**	**1.**
BELO (A.H.) BLC	395.2	5	1434.0	3	69.4	491	178.3	175	17.6	3.1	13.5	10	1.
DOW JONES DJ	559.4	14	2001.8	–7	60.9	NM	272.4	NM	10.9	NM	55.0	21	2.
GANNETT GCI	1501.1	13	5260.2	8	284.0	14	919.4	–5	18.9	18.7	21.3	21	3.
KNIGHT-RIDDER KRI	863.0	6	3228.2	4	114.3	42	339.9	11	13.2	9.8	18.0	15	3.
McCLATCHY MNI	286.7	4	1087.9	12	26.5	26	82.5	35	9.3	7.7	9.7	22	1
McGRAW-HILL MHP	1034.3	10	3992.0	7	120.8	62	425.8	25	11.7	7.9	25.9	26	2.
MEREDITH MDP [8]	266.1	4	1061.9	3	25.5	0	88.9	3	9.6	10.0	24.1	20	1.
PRIMEDIA PRM	455.6	2	1716.1	9	–52.1	NM	–120.1	NM	NM	NM	NM	NM	–1.
READER'S DIGEST ASSOCIATION RDA [8]	844.0	8	2534.7	–5	96.8	12	163.0	50	11.5	11.1	45.9	23	1.
SCHOLASTIC SCHL [7]	507.8	26	1289.1	18	41.3	30	40.3	61	8.1	7.9	10.5	25	2.
SCRIPPS (E.W.) SSP	427.1	7	1558.8	7	45.8	5	146.9	12	10.7	11.0	12.9	25	1.
TIME WARNER TWX	7988.0	90	27333.0	87	848.0	842	1960.0	NM	10.6	2.1	21.7	60	1.
TRIBUNE TRB	828.4	8	3221.9	8	130.0	15	1483.1	258	15.7	14.8	50.7	7	5.
USA NETWORKS USAI	936.1	22	3235.8	23	–17.8	NM	–27.6	NM	NM	6.6	–1.0	NM	–0.
WASHINGTON POST WPO	598.4	1	2215.6	5	61.0	–4	225.8	–46	10.2	10.8	13.4	23	22.

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CORPORATE SCOREBOARD

COMPANY SYMBOL	SALES 4TH QUARTER 1999 $ MIL	CHANGE FROM 1998 %	12 MONTHS 1999 $ MIL.	CHANGE FROM 1998 %	PROFITS 4TH QUARTER 1999 $ MIL	CHANGE FROM 1998 %	12 MONTHS 1999 $ MIL	CHANGE FROM 1998 %	MARGINS 4TH QUARTER 1999 %	MARGINS 4TH QUARTER 1998 %	RETURN ON COMMON EQUITY 12 MONTHS ENDING 12-31	PRICE-EARNINGS RATIO 2-10	12 MONTHS EARNINGS PER SHARE
21 SERVICE INDUSTRIES													
INDUSTRY COMPOSITE	**52762.6**	**22**	**196272.4**	**18**	**–837.6**	**NM**	**3588.5**	**–10**	**NM**	**1.6**	**7.6**	**35**	**0.70**
(A) CONSTRUCTION & ENGINEERING													
GROUP COMPOSITE	**6963.6**	**2**	**26480.3**	**3**	**50.1**	**38**	**191.6**	**–27**	**0.7**	**0.5**	**4.5**	**33**	**0.65**
FLUOR FLR [2]	2872.5	–13	12417.4	–8	75.8	19	104.2	–56	2.6	1.9	6.6	26	1.3
FOSTER WHEELER FWC	1073.2	–23	3867.0	–15	-141.5	NM	–143.6	NM	NM	1.2	–27.0	NM	–3.53
INTEGRATED ELECTRICAL SERVICES IEE [3]	335.2	70	1173.4	112	2.6	–71	41.6	328	0.8	4.6	8.9	5	1.1
JACOBS ENGINEERING GROUP JEC [3]	809.1	46	3128.9	46	–5.8	NM	44.5	–22	NM	2.7	10.1	17	1.6
MASTEC MTZ	312.4	–5	1059.0	1	11.1	NM	44.7	NM	3.5	NM	17.4	30	1.62
MORRISON KNUDSEN MK [1]	663.7	22	2248.2	21	13.3	25	48.3	29	2.0	2.0	12.4	8	0.91
STONE & WEBSTER SW	328.7	20	1167.8	–4	81.1	NM	15.3	NM	24.7	NM	4.7	14	1.17
URS URS [2]	568.8	162	1418.5	76	13.5	89	36.6	61	2.4	3.3	16.4	8	1.98
(B) INDUSTRIAL DISTRIBUTION													
GROUP COMPOSITE	**26399.0**	**33**	**94512.3**	**19**	**511.2**	**31**	**1971.4**	**28**	**1.9**	**2.0**	**11.2**	**35**	**1.21**
AIRGAS ARG [9]	369.4	–3	1519.7	–3	9.8	–56	45.8	19	2.6	5.8	9.4	12	0.64
APPLIED INDUSTRIAL TECHNOLOGIES APZ [6]	372.6	0	1530.7	0	6.2	42	26.3	11	1.7	1.2	8.9	13	1.25
AUDIOVOX VOXX [1]	410.5	97	1159.5	88	11.4	230	27.2	817	2.8	1.7	12.7	36	1.39
AVNET AVT [6]	2102.8	38	6998.6	14	15.1	–43	169.5	71	0.7	1.7	9.8	11	4.77
BOISE CASCADE OFFICE PRODUCTS BOP	893.3	10	3381.7	10	21.7	119	74.9	41	2.4	1.2	12.2	13	1.14
BRIGHTPOINT CELL	545.8	7	1802.3	11	9.9	NM	–79.0	NM	1.8	NM	–50.6	NM	–1.48
CAMERON ASHLEY BUILDING PRODS. CAB [2]	323.9	13	1138.4	27	7.0	7	17.1	12	2.2	2.3	12.8	7	1.94
CELLSTAR CLST [1]	687.9	7	2333.8	17	24.5	NM	69.1	381	3.6	NM	27.6	8	1.14
DAISYTEK INTERNATIONAL DZTK [9]	283.1	26	1003.4	12	–2.9	NM	5.7	–72	NM	2.2	3.5	71	0.32
DYNEGY DYN	4639.3	51	15430.0	8	45.1	56	151.8	40	1.0	0.9	12.8	46	0.91
ENRON ENE	10973.0	42	40112.0	28	259.0	47	1024.0	46	2.4	2.3	11.7	53	1.27
GRAINGER (W.W.) GWW	1121.4	7	4533.9	4	28.2	–57	180.7	–24	2.5	6.3	13.0	26	1.92
HUGHES SUPPLY HUG [11]	786.4	19	2873.2	19	20.2	6	65.4	9	2.6	2.9	12.8	6	2.76
KENT ELECTRONICS KNT [9]	259.0	67	877.4	41	5.2	NM	11.4	73	2.0	NM	3.4	73	0.40
PIONEER-STANDARD ELECTRONICS PIOS [9]	668.3	12	2434.9	14	12.3	30	42.7	49	1.8	1.6	12.4	12	1.2
PSS WORLD MEDICAL PSSI [9]	462.1	16	1761.1	17	11.9	–14	46.7	73	2.6	3.5	10.5	11	0.66
UNITED STATIONERS USTR	890.2	11	3393.0	11	25.1	16	83.4	30	2.8	2.7	20.5	11	2.31
WORLD FUEL SERVICES INT [9]	323.1	78	1031.3	39	0.7	–82	5.1	–64	0.2	2.0	6.1	15	0.4
YORK RESEARCH YORK [10]	286.9**	23	1197.5	58	0.8	NM	3.5	–54	0.3	NM	5.8	14	0.2
(C) POLLUTION CONTROL													
GROUP COMPOSITE	**897.3**	**6**	**3465.9**	**23**	**77.2**	**2**	**307.6**	**49**	**8.6**	**8.9**	**11.0**	**8**	**1.1**
REPUBLIC SERVICES RSG	488.8	30	1838.5	34	52.5	10	206.8	16	10.7	12.6	14.0	9	1.1
SAFETY-KLEEN SK [4]	408.5	–13	1627.4	13	24.7	–11	100.8	246	6.0	5.9	7.7	6	1.0
(D) PRINTING & ADVERTISING													
GROUP COMPOSITE	**2080.8**	**3**	**7507.4**	**1**	**153.8**	**34**	**368.2**	**–21**	**7.4**	**5.7**	**26.1**	**10**	**2.0**
ADVO AD [3]	274.2	2	1045.8	–1	11.9	17	40.7	9	4.3	3.8	NM	14	1.9
BANTA BN	338.3	–2	1278.3	–4	15.5	26	16.0	–70	4.6	3.6	4.4	32	0.5
DONNELLEY (R.R.) DNY	1468.3	4	5183.4	3	126.5	37	311.5	–17	8.6	6.5	28.1	9	2.4
(E) OTHER SERVICES													
GROUP COMPOSITE	**16421.8**	**19**	**64306.4**	**27**	**–1629.9**	**NM**	**749.6**	**–51**	**NM**	**0.4**	**3.6**	**62**	**0.2**
ABM INDUSTRIES ABM [2]	426.9**	9	1629.7	9	13.2	14	39.7	17	3.1	2.9	14.1	13	1.6
AUTONATION AN	5019.8	38	20111.8	59	–279.6	NM	–31.5	NM	NM	1.7	–0.6	NM	–0.0
CARMAX GROUP KMX [10]	489.0	41	1884.7	39	–3.1	NM	–7.2	NM	NM	NM	–2.1	NM	–0.4
CASEY'S GENERAL STORES CASY [8]	414.2*	28	1401.7	16	12.7	0	42.4	14	3.1	3.9	12.9	12	0.8
CENDANT CD	1283.0**	–10	5402.0	2	–1465.0	NM	–213.0	NM	NM	NM	–5.5	NM	–0.2
CINTAS CTAS [7]	465.8	7	1811.9	11	48.3	9	149.8	3	10.4	10.2	15.5	30	1.3
CONVERGYS CVG †	486.7	20	1762.9	22	32.1	–6	137.0	69	6.6	8.4	14.8	38	0.8
HANDLEMAN HDL [8]	288.9	0	1062.3	–3	13.5	122	32.1	NM	4.7	2.1	14.9	12	1.0
KELLY SERVICES KELYA	1084.4	–1	4269.1	4	24.2	0	85.1	0	2.2	2.2	14.9	11	2.3
MAGELLAN HEALTH SERVICES MGL [3]	481.8	9	1910.1	20	6.3	57	24.7	NM	1.3	0.9	12.5	9	0.7
PANTRY PTRY [3]	540.4*	71	1903.7	72	2.3	114	15.2	161	0.4	0.3	11.3	25	0.6
QUINTILES TRANSNATIONAL QTRN	442.6	32	1607.1	32	24.2	–1	73.2	–15	5.5	7.3	7.8	46	0.6
REGIS RGIS [6]	285.9	17	1058.2	16	10.8	7	35.5	–5	3.8	4.1	14.2	18	0.8
ROBERT HALF INTERNATIONAL RHI	569.8	19	2081.3	16	37.6	7	141.4	7	6.6	7.4	24.6	29	1.5
SERVICE CORP. INTERNATIONAL SRV	810.7	5	3321.8	16	–184.2	NM	–34.3	NM	NM	7.7	–0.9	NM	–0.1
SERVICEMASTER SVM	1467.2	20	5703.5	21	53.3	11	173.6	–9	3.6	3.9	14.4	25	0.5
STAFFMARK STAF	317.1	E	1220.9	20	5.2	NM	30.2	62	1.6	NM	10.6	E	1.0
UNITED AUTO GROUP UAG	988.8	18	4022.5	20	5.4	NM	26.7	100	0.5	NM	6.3	10	1.0
VOLT INFORMATION SCIENCES VOL [2]	558.9	11	2141.1	25	13.0	42	29.0	39	2.3	1.8	12.6	13	1.9

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COMPANY SYMBOL	SALES 4TH QUARTER 1999 $ MIL	CHANGE FROM 1998 %	SALES 12 MONTHS 1999 $ MIL.	CHANGE FROM 1998 %	PROFITS 4TH QUARTER 1999 $ MIL	CHANGE FROM 1998 %	PROFITS 12 MONTHS 1999 $ MIL.	CHANGE FROM 1998 %	MARGINS 4TH QUARTER 1999 %	MARGINS 4TH QUARTER 1998 %	RETURN ON COMMON EQUITY 12 MONTHS ENDING 12-31	PRICE-EARNINGS RATIO 2-10	12 MONTH EARNINGS PER SHARE
22 TELECOMMUNICATIONS													
INDUSTRY COMPOSITE	**87089.9**	**10**	**331677.1**	**18**	**8747.0**	**1**	**33344.7**	**42**	**10.0**	**10.9**	**12.9**	**35**	**1.4**
(A) EQUIPMENT & SERVICES													
GROUP COMPOSITE	**46702.2**	**13**	**177838.5**	**31**	**3882.4**	**8**	**13128.7**	**187**	**8.3**	**8.7**	**6.9**	**55**	**0.9**
ADC TELECOMMUNICATIONS ADCT [2]	582.5	32	1926.9	25	41.1	–27	87.6	–50	7.1	12.7	7.0	NM	0.5
AT&T T	16334.0	21	62391.0	17	1153.0	–42	5450.0	4	7.1	14.7	6.2	28	1.7
CENTURYTEL CTL	426.5	3	1676.7	6	60.7	16	239.8	5	14.2	12.6	14.0	22	1.7
GLOBAL TELESYSTEMS GROUP GTS	253.1	78	852.2	129	–239.4	NM	–616.7	NM	NM	NM	NM	NM	–3.7
IDT IDTC [5]	283.4	113	882.3	113	24.4	400	25.7	NM	8.6	3.7	–0.2	NM	–0.0
LUCENT TECHNOLOGIES LU [3]	9905.0	1	38837.0	18	1250.0	1	3495.0	147	12.6	12.6	24.1	49	1.0
MCI WORLDCOM WCOM	9625.0	5	37120.0	104	1303.0	183	4013.0	NM	13.5	5.0	8.0	37	1.3
McLEODUSA MCLD	263.9	59	908.8	50	–53.0	NM	–220.3	NM	NM	NM	–22.3	NM	–1.6
QWEST COMMUNICATIONS INTL. Q	1157.4	34	3927.6	75	437.0	NM	458.5	NM	37.8	NM	6.5	76	0.6
SCIENTIFIC-ATLANTA SFA [6]	372.7	20	1397.2	20	33.4	74	126.7	52	9.0	6.2	15.8	64	1.5
SPRINT FON GROUP FON	4407.0	8	17016.0	8	431.0	–5	1736.0	4	9.8	11.1	15.7	33	1.9
SPRINT PCS GROUP PCS	996.0	128	3180.0	160	–706.0	NM	–2481.0	NM	NM	NM	–57.6	NM	–2.7
TELEPHONE & DATA SYSTEMS TDS	500.3	12	1963.1	19	11.5	–51	314.2	56	2.3	5.3	12.6	20	5.0
TELLABS TLAB	714.9	37	2319.5	36	188.7	56	559.1	41	26.4	23.2	27.3	45	1.3
U.S. CELLULAR USM †	357.0	14	1417.2	22	21.0	10	300.8	39	5.9	6.1	13.2	19	3.2
WILLIAMS COMMUNICATIONS GROUP WCG	523.5	3	2023.0	17	–74.0	NM	–359.7	NM	NM	NM	–44.1	NM	–0.8
(B) TELEPHONE COMPANIES													
GROUP COMPOSITE	**40387.7**	**5**	**153838.6**	**5**	**4864.7**	**–4**	**20216.0**	**7**	**12.0**	**13.3**	**26.8**	**22**	**2.2**
ALLTEL AT	1596.8	7	6302.3	12	233.5	34	783.6	30	14.6	11.7	18.6	27	2.4
BELL ATLANTIC BEL	8608.0	7	33174.0	5	719.0	–32	4208.0	41	8.4	13.1	27.1	22	2.6
BELLSOUTH BLS	6681.0	8	25224.0	9	1053.0	5	3448.0	–2	15.8	16.3	23.3	25	1.8
BROADWING BRW	372.9	65	1131.3	28	–40.8	NM	38.4	–53	NM	9.8	1.9	NM	0.2
GTE GTE	6741.0	–1	25336.0	–1	1007.0	18	4063.0	63	14.9	12.5	37.5	16	4.1
SBC COMMUNICATIONS SBC	12897.0	6	49489.0	7	1727.0	9	6573.0	–15	13.4	13.1	24.6	22	1.9
U S WEST USW	3491.0	9	13182.0	6	166.0	–55	1102.0	–23	4.8	11.5	87.8	34	2.1
23 TRANSPORTATION													
INDUSTRY COMPOSITE	**57854.7**	**11**	**222253.4**	**8**	**2752.9**	**63**	**10471.6**	**5**	**4.8**	**3.2**	**14.5**	**11**	**2.3**
(A) AIRLINES													
GROUP COMPOSITE	**22055.1**	**8**	**88468.8**	**5**	**945.2**	**72**	**4939.3**	**13**	**4.3**	**2.7**	**22.5**	**8**	**3.5**
ALASKA AIR GROUP ALK	501.9	10	2082.0	10	17.0	–37	134.2	8	3.4	5.9	14.4	6	5.0
AMERICA WEST HOLDINGS AWA	568.9	12	2210.9	9	29.0	44	119.4	10	5.1	4.0	16.9	5	3.0
AMR AMR	4487.0	8	17730.0	1	209.0	27	655.0	–41	4.7	3.9	13.1	13	4.1
AMTRAN AMTR	256.8	23	1122.4	22	0.4	–73	47.3	18	0.2	0.7	31.8	5	3.9
CONTINENTAL AIRLINES CAL	2152.0	11	8639.0	9	167.0	153	488.0	26	7.8	3.4	32.3	4	6.0
DELTA AIR LINES DAL [6]	3713.0	8	15051.0	5	352.0	81	1285.0	19	9.5	5.6	28.5	5	8.0
NORTHWEST AIRLINES NWAC	2555.0	15	10276.0	14	29.0	NM	300.0	NM	1.1	NM	NM	5	3.3
SOUTHWEST AIRLINES LUV	1204.4	15	4735.6	14	93.8	–7	474.4	9	7.8	9.6	16.9	18	0.4
UAL UAL	4481.0	5	18027.0	3	129.0	139	1238.0	51	2.9	1.3	21.6	5	9.9
US AIRWAYS GROUP U	2135.0	1	8595.0	–1	–81.0	NM	197.0	–63	NM	4.9	285.5	8	2.0
(B) RAILROADS													
GROUP COMPOSITE	**9456.0**	**11**	**36379.0**	**8**	**563.0**	**398**	**2206.0**	**33**	**6.0**	**1.3**	**8.1**	**14**	**1.0**
BURLINGTON NORTHERN SANTA FE BNI	2370.0	3	9100.0	2	315.0	6	1133.0	1	13.3	12.9	14.3	9	2.
CSX CSX	2748.0	10	10811.0	10	–25.0	NM	51.0	–91	NM	4.3	0.9	96	0.
NORFOLK SOUTHERN NSC	1471.0**	43	5195.0	23	31.0	–81	239.0	–62	2.1	15.6	4.0	24	0.
UNION PACIFIC UNP	2867.0	7	11273.0	7	242.0	NM	783.0	NM	8.4	NM	10.0	12	3.
(C) TRANSPORTATION SERVICES													
GROUP COMPOSITE	**13373.5**	**12**	**50317.8**	**10**	**438.5**	**0**	**1873.1**	**10**	**3.3**	**3.7**	**14.7**	**15**	**2.**
AIRBORNE FREIGHT ABF	805.9	2	3140.2	2	17.3	–55	91.2	–34	2.2	4.8	10.8	10	1.
AVIS RENT A CAR AVI	1005.5	80	3332.7	45	10.7	196	92.6	46	1.1	0.6	12.7	8	2.
CNF TRANSPORTATION CNF	1567.5	14	5592.8	13	55.2	59	190.5	37	3.5	2.5	20.0	9	3.
EXPEDITORS INTL. OF WASHINGTON EXPD	422.7	37	1444.6	36	18.6	33	59.2	25	4.4	4.5	22.1	34	1.
FEDEX FDX [7]	4570.1	9	17372.0	6	171.2	–6	629.4	22	3.7	4.3	13.6	19	2.
FRITZ FRTZ [7]	426.5	12	1481.6	9	9.1	7	13.3	–41	2.1	2.2	4.8	28	0.
GATX GMT	466.8	–3	1858.9	0	31.8	24	151.3	15	6.8	5.3	18.4	10	3.
HERTZ HRZ	1170.5	10	4715.7	11	60.3	26	336.0	21	5.2	4.5	20.5	13	3.
HUB GROUP HUBG	336.3	8	1296.8	13	3.1	18	10.8	22	0.9	0.8	8.5	13	1.
ROBINSON (C.H.) WORLDWIDE CHRW	579.0	14	2261.0	11	14.6	31	53.3	24	2.5	2.2	21.6	37	1.
RYDER SYSTEM R	1321.8	10	4952.2	7	6.3	–78	72.9	–43	0.5	2.4	6.0	20	1.
TRINITY INDUSTRIES TRN [9]	700.8	–3	2869.3	0	40.3	–4	172.5	–6	5.8	5.8	17.6	5	4.

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COMPANY SYMBOL	SALES 4TH QUARTER 1999 $ MIL.	CHANGE FROM 1998 %	12 MONTHS 1999 $ MIL	CHANGE FROM 1998 %	PROFITS 4TH QUARTER 1999 $ MIL.	CHANGE FROM 1998 %	12 MONTHS 1999 $ MIL.	CHANGE FROM 1998 %	MARGINS 4TH QUARTER 1999 %	MARGINS 4TH QUARTER 1998 %	RETURN ON COMMON EQUITY 12 MONTHS ENDING 12-31	PRICE-EARNINGS RATIO 2-10	12 MONTH EARNINGS PER SHARE
(D) TRUCKING & SHIPPING													
GROUP COMPOSITE	**12970.2**	**12**	**47087.8**	**9**	**806.2**	**38**	**1453.2**	**–34**	**6.2**	**5.1**	**14.2**	**11**	**1.6**
ALEXANDER & BALDWIN ALEX	253.1	–23	959.3	–27	5.0	NM	62.6	102	2.0	NM	9.0	14	1.4
AMERICAN FREIGHTWAYS AFWY	306.5	20	1166.7	18	13.8	63	48.1	75	4.5	3.3	16.3	9	1.4
ARKANSAS BEST ABFS	455.5	13	1721.6	7	16.5	53	51.2	64	3.6	2.7	22.8	5	2.
CONSOLIDATED FREIGHTWAYS CFWY	605.5	6	2379.0	6	–11.3	NM	2.7	–90	NM	0.5	1.0	57	0.1
HUNT (J.B.) TRANSPORT SERVICES JBHT	553.4	12	2045.1	11	5.6	–49	31.9	–32	1.0	2.2	8.0	14	0.8
LANDSTAR SYSTEM LSTR	380.1	14	1388.1	8	15.6	38	45.9	33	4.1	3.4	39.4	13	4.5
ROADWAY EXPRESS ROAD	934.6	16	2813.2	6	20.6	110	45.8	76	2.2	1.2	16.9	9	2.3
SWIFT TRANSPORTATION SWFT	284.3	19	1061.2	22	18.5	13	66.8	20	6.5	6.9	17.7	13	1.0
UNITED PARCEL SERVICE UPS	7446.0	12	27052.0	9	661.0	37	883.0	–49	8.9	7.2	14.4	74	0.7
USFREIGHTWAYS USFC	588.4	24	2222.4	21	30.7	52	104.2	46	5.2	4.2	19.7	10	3.7
WERNER ENTERPRISES WERN	280.6	21	1052.3	22	12.8	–17	60.0	5	4.6	6.6	12.1	10	1.2
YELLOW YELL	882.3	20	3226.8	11	17.3	65	50.9	27	2.0	1.4	13.0	8	2.0
24 UTILITIES													
INDUSTRY COMPOSITE	**80589.3**	**20**	**312423.0**	**15**	**3794.1**	**40**	**21621.5**	**19**	**4.7**	**4.0**	**12.4**	**14**	**2.2**
(A) ELECTRIC, WATER & COGENERATION													
GROUP COMPOSITE	**67735.9**	**20**	**266194.8**	**15**	**3155.7**	**31**	**19568.3**	**19**	**4.7**	**4.3**	**12.9**	**12**	**2.4**
AES AES †	1128.0	75	3253.0	36	129.0	40	245.0	–20	11.4	14.2	16.3	66	1.2
ALLEGHENY ENERGY AYE	733.7	27	2808.4	9	56.9	13	300.3	10	7.8	8.8	16.6	11	2.4
ALLIANT ENERGY LNT	566.7	7	2198.0	3	46.5	73	203.3	97	8.2	5.1	9.9	12	2.5
AMEREN AEE	734.4	8	3523.6	6	–2.4	NM	397.7	0	NM	4.3	12.1	11	2.8
AMERICAN ELECTRIC POWER AEP	1665.0	14	6916.0	8	107.0	49	520.0	–3	6.4	4.9	10.4	12	2.6
AMERICAN WATER WORKS AWK	310.9	4	1260.9	5	32.6	–3	138.9	–8	10.5	11.2	8.4	15	1.4
AVISTA AVA	1538.2	51	7905.0	115	–29.5	NM	26.0	–67	NM	2.1	1.1	NM	0.1
CAROLINA POWER & LIGHT CPL	806.1	12	3357.6	5	79.0	29	382.3	–4	9.8	8.5	11.1	13	2.5
CENTRAL & SOUTH WEST CSR	1375.0	6	5537.0	1	89.0	107	473.0	5	6.5	3.3	12.7	9	2.1
CINERGY CIN	1478.0	4	5937.9	0	97.1	34	409.1	53	6.6	5.1	15.3	10	2.5
CMS ENERGY CMS	1768.0	31	6103.0	19	22.0	–61	284.0	9	1.2	4.2	11.8	8	2.3
CONECTIV CIV	915.4	5	3744.9	22	18.4	–30	133.5	–21	2.0	3.0	9.3	14	1.1
CONSOLIDATED EDISON ED	1889.1	17	7491.3	6	125.0	–8	714.2	–2	6.6	8.4	12.6	10	3.1
CONSTELLATION ENERGY GROUP CEG	1063.6	35	3786.2	13	42.8	156	339.9	4	4.0	2.1	10.6	15	2.7
DOMINION RESOURCES D	1249.5	6	5520.3	–9	62.6	15	550.6	3	5.0	4.6	11.0	14	2.8
DPL DPL	333.7	–1	1338.9	–1	40.7	12	204.3	8	12.2	10.8	14.9	15	1.3
DQE DQE	323.8	5	1339.9	7	62.6	27	201.8	3	19.3	15.9	13.8	18	2.6
DTE ENERGY DTE	1114.0	10	4728.0	12	97.0	–8	483.0	9	8.7	10.5	12.5	10	3.3
DUKE ENERGY DUK	6197.0	48	21742.0	23	–189.0	NM	847.0	–33	NM	5.3	8.9	23	2.2
EDISON INTERNATIONAL EIX	2509.4	11	9670.1	9	101.7	–40	648.9	–6	4.1	7.4	11.9	15	1.7
ENERGY EAST NEG	545.2	–11	2278.6	–9	47.4	5	239.0	18	8.7	7.4	15.9	12	1.8
FIRSTENERGY FE	1646.0	25	6319.6	8	139.4	23	645.1	27	8.5	8.6	12.5	9	2.5
FLORIDA PROGRESS FPC	941.1	5	3845.1	6	33.7	–8	316.3	12	3.6	4.1	15.5	14	3.2
FPL GROUP FPL	1520.0	–7	6438.0	–3	123.0	27	711.0	5	8.1	5.9	13.0	10	4.6
GPU GPU	1371.4	34	4757.1	12	75.8	–12	470.0	18	5.5	8.4	12.8	8	3.0
LG&E ENERGY LGE †	619.0	23	2707.3	30	43.5	98	240.8	47	7.0	4.3	17.9	9	1.8
MIDAMERICAN ENERGY HOLDINGS MEC	1264.7	70	4128.7	62	66.1	119	216.7	58	5.2	4.1	23.2	10	3.6
MONTANA POWER MTP	375.4	–6	1342.3	6	62.1	–12	150.3	–9	16.5	17.7	13.2	33	1.
NEW CENTURY ENERGIES NCE	847.0	–1	3375.4	–3	98.1	–10	346.6	1	11.6	12.6	12.8	9	3.
NEW ENGLAND ELECTRIC SYSTEM NES	708.5	18	2623.5	8	46.8	52	163.9	–14	6.6	5.2	10.3	20	2.
NIAGARA MOHAWK HOLDINGS NMK	1016.5	12	4084.2	2	–8.4	NM	25.5	NM	NM	NM	–0.4	NM	-0.
NISOURCE NI	884.7	17	3144.9	7	35.0	–44	168.7	–17	4.0	8.3	11.8	14	1.
NORTHEAST UTILITIES NU	1148.7	20	4471.3	19	–10.5	NM	57.0	NM	NM	NM	1.6	76	0.
NORTHERN STATES POWER NSP	685.2	–4	2869.0	2	50.1	–43	225.3	–20	7.3	12.4	8.6	13	1.
NORTHWESTERN NOR	1145.7	203	3004.3	153	12.5	21	38.1	40	1.1	2.7	13.0	14	1.
NSTAR NST	582.8	60	1851.1	14	22.4	167	146.4	4	3.8	2.3	8.4	15	2.
OGE ENERGY OGE	576.0	59	2172.4	34	12.2	19	151.3	–9	2.1	2.8	14.7	10	1.
PECO ENERGY PE	1254.0	17	5436.6	3	139.0	NM	609.4	14	11.1	NM	31.9	14	3.
PINNACLE WEST CAPITAL PNW	546.4	12	2423.4	14	44.8	19	270.8	7	8.2	7.7	12.3	10	3.
POTOMAC ELECTRIC POWER POM	502.0	12	2476.0	11	–8.2	NM	247.1	9	NM	NM	12.5	10	1.
PPL RESOURCES PPL	1133.0	26	4590.0	21	140.0	47	504.0	25	12.4	10.5	29.7	7	3.
PUBLIC SERVICE CO. OF NEW MEXICO PNM	282.8	9	1160.0	6	17.0	–7	80.2	–16	6.0	7.1	9.0	8	1.
PUBLIC SERVICE ENTERPRISE GROUP PEG	1660.0	7	6497.0	8	135.0	–12	732.0	12	8.1	9.9	17.8	10	3.
RELIANT ENERGY REI	4054.9	53	15302.8	33	110.6	NM	1665.7	NM	2.7	NM	30.3	4	5.
RGS ENERGY GROUP RGS	325.8	14	1207.5	17	24.6	64	93.6	–1	7.6	5.2	11.6	8	2.
SOUTHERN SO	2616.0	3	11585.0	2	128.5	NM	1297.1	29	4.9	NM	13.4	13	1.
TECO ENERGY TE	490.0	3	1983.0	1	42.7	1	200.9	–2	8.7	8.9	13.2	13	1.
TEXAS UTILITIES TXU	4485.9	–3	17117.9	16	345.6	44	997.7	32	7.7	5.2	12.1	10	3.
UNICOM UCM	1540.0	–2	6848.0	–4	105.0	–16	621.5	10	6.8	8.0	11.3	14	2.

66 OUT OF 68 OF THE WORLD'S TOP EXCHANGES WILL TRADE ANYTHING.

EXCEPT THEIR COMPUTERS.

Up, down, up, down. Okay for markets. Not okay for their computer systems. So in an overwhelming 66 of 68 cases, their computer systems are Compaq *NonStop* eBusiness Solutions. The same kind trusted with 75% of all ATM transactions, 66% of all credit card sales, 60% of all funds transfers. All from Compaq, the people who know 24x7 computing best. Including the fact that it's not just for high finance anymore. Got an e-business? If it stops, for even a blink, you lose. Not just money, but customers. Maybe forever. Want to avoid that? Maybe you should trade up. For more: www.compaq.com/NonStop.

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COMPAQ NonStop

COMPANY SYMBOL	SALES 4TH QUARTER 1999 $ MIL.	SALES CHANGE FROM 1998 %	SALES 12 MONTHS 1999 $ MIL.	SALES CHANGE FROM 1998 %	PROFITS 4TH QUARTER 1999 $ MIL.	PROFITS CHANGE FROM 1998 %	PROFITS 12 MONTHS 1999 $ MIL.	PROFITS CHANGE FROM 1998 %	MARGINS 4TH QUARTER 1999 %	MARGINS 4TH QUARTER 1998 %	RETURN ON COMMON EQUITY 12 MONTHS ENDING 12-31	PRICE-EARNINGS RATIO 2-10	12 MONTHS EARNINGS PER SHARE
UTILICORP UNITED UCU	4386.1	33	18621.5	48	41.3	12	160.5	21	0.9	1.1	10.6	10	1.7
WISCONSIN ENERGY WEC	585.6	11	2272.6	11	38.0	–27	210.2	11	6.5	9.9	10.5	11	1.7
WPS RESOURCES WPS	296.1	1	1098.5	3	13.7	91	62.7	26	4.6	2.5	11.2	11	2.2
(B) GAS, OIL & TRANSMISSION													
GROUP COMPOSITE	**12853.4**	**19**	**46228.2**	**12**	**638.3**	**122**	**2053.2**	**18**	**5.0**	**2.7**	**9.0**	**28**	**1.16**
COLUMBIA ENERGY GROUP CG	951.6	25	3189.2	21	155.3	43	355.0	18	16.3	14.3	17.9	15	4.2
EASTERN ENTERPRISES EFU	318.4	23	978.7	5	28.2	44	55.1	8	8.9	7.6	7.3	25	2.2
EL PASO ENERGY EPG	2443.0	19	10581.0	11	–172.0	NM	–217.0	NM	NM	3.2	–11.6	NM	–1.06
KEYSPAN KSE	911.5	26	2954.6	16	83.4	NM	258.6	NM	9.1	NM	8.3	14	1.62
KINDER MORGAN KMI	472.9	–2	1745.5	7	112.5	455	154.7	18	23.8	4.2	22.0	15	1.9
MDU RESOURCES GROUP MDU	354.9	28	1279.8	43	24.5	NM	84.1	147	6.9	NM	12.8	13	1.5
NATIONAL FUEL GAS NFG [3]	377.0	11	1299.9	7	44.9	19	122.3	278	11.9	11.1	13.0	14	3.1
NEW JERSEY RESOURCES NJR [3]	263.4	8	923.1	26	16.2	6	45.9	4	6.1	6.2	15.2	15	2.5
NICOR GAS	539.7	26	1615.2	10	39.1	26	124.4	7	7.2	7.3	16.0	13	2.6
ONEOK OKE [4]	533.5	42	2001.4	6	15.7	10	107.8	4	2.9	3.8	6.2	15	1.7
PEOPLES ENERGY PGL [3]	412.5	33	1296.6	22	29.6	27	98.8	47	7.2	7.5	12.9	11	2.7
QUESTAR STR	285.5	3	924.2	2	17.3	49	98.8	29	6.1	4.2	10.5	12	1.2
SEMPRA ENERGY SRE	1480.0	14	5374.0	8	107.0	22	405.0	32	7.2	6.8	13.6	11	1.6
UGI UGI [3]	466.6	25	1476.5	10	21.5	17	60.4	71	4.6	4.9	23.6	10	1.9
WASHINGTON GAS LIGHT WGL [3]	310.5	4	985.3	2	39.8	60	83.6	51	12.8	8.4	11.6	14	1.7
WICOR WIC	283.6	14	1010.1	7	18.3	17	53.8	18	6.5	6.3	12.9	21	1.4
WILLIAMS WMB	2448.8	20	8593.1	12	57.1	NM	161.8	14	2.3	NM	3.4	NM	0.3

ALPHABETICAL LIST OF COMPANIES

The number following each company name identifies the Scoreboard category under which it is listed

A

A&P 10c
Abbott Laboratories 12b
Abercrombie & Fitch 8
ABM Industries 21e
Activision 18c
ADC Telecomm. 22a
Adobe Systems 18c
Advance Paradigm 17a
Advanced Micro 9d
ADVO 21d
AES 24a
Aetna 17b
Affiliated Computer Svcs. 18c
Affiliated Managers 17a
AFLAC 17b
AGCO 15c
Agilent Technologies 9c
Agribrands International 10b
Air Products & Chemicals 4
Airborne Freight 23c
Airgas 21b
AK Steel Holding 16b
Alaska Air Group 23a
Alberto-Culver 8
Albertson's 10c
Alcoa 16a
Alexander & Baldwin 23d
Allegheny Energy 24a
Allegheny Tech. 5
Allergan 12b
Alliant Energy 24a
Allstate 17b
Alltel 22b
Alpine Group 9c
Amazon.com 8
AMC Entertainment 14b
Amerada Hess 11a
Ameren 24a
America Online 18c
America West Holdings 23a
American Axle & Mfg. 2b
American Electric 24a
American Express 17a
American Freightways 23d
American General 17b
American Greetings 14d
American Home 12b
American Intl. Group 17b
American National Can 7a
American Power 9a
American Standard 13a
American Water Works 24a
AmeriSource Health 12a
Ames Dept. Stores 8
Amgen 12b
Amkor Technology 9d
Amphenol 9d
AMR 23a
Amtran 23a
Analog Devices 9d
Andersons 10a
Anheuser-Busch 6c
Anixter International 5
AnnTaylor Stores 8
Aon 17b
Apache 11a
Apple Computer 18b
Applied Industrial Tech. 21b
Applied Materials 15c
Applied Power 15a
Arch Coal 11a
Archer Daniels 10b
Arkansas Best 23d
Armstrong World 6b
Arvin Industries 2b
Ashland 11a
Associated Banc-Corp 3a
Associates First Capital 17a
Astoria Financial 17c
AT&T 22a
Atlantic Richfield 11a
Atmel 9d
Audiovox 21b
Autoliv 2b
Automatic Data 18c
AutoNation 21e
AutoZone 8
Avery Dennison 7b
Avis Rent A Car 23c
Avista 24a
Avnet 21b
Avon Products 6d
AVX 9d
AXA Financial 17b

B

Ball 7a
BancWest 3d
Bandag 2c
Bank of America 3c
Bank of New York 3a
Bank One 3b
Bank United 17c
Banta 21d
Bard (C.R.) 12d
Barnes & Noble 8
Bausch & Lomb 12d
Baxter International 12d
BB&T 3c
Bear Stearns 17a
Beazer Homes USA 13b
Beckman Coulter 9c
Becton, Dickinson 12d
Bed Bath & Beyond 6b
Belden 16c
Bell Atlantic 22b
BellSouth 22b
Belo (A.H.) 20
Bemis 7b
Benchmark Electronics 9d
Bergen Brunswig 12a
Best Buy 6b
Bestfoods 10b
Bethlehem Steel 16b
BJ Services 11b
BJ's Wholesale Club 8
Black & Decker 15b
Blyth Industries 15a
BMC Software 18c
Boeing 1
Boise Cascade 19b
Boise Cascade Office Prods. 21b
Borders Group 8
Borg-Warner Automotive 2b
Boston Scientific 12d
Bowater 19b
Bradlees 8
Briggs & Stratton 15c
Brightpoint 21b
Brinker International 14a
Bristol-Myers Squibb 12b
Broadwing 22b
Brown Shoe 6a
Brown-Forman 6c
Bruno's 10c
Brunswick 14d
Burlington Coat Factory 8
Burlington Industries 15d
Burlington Northern Santa Fe 23b
Burlington Resources 11a
Butler Mfg. 15a

C

Cabletron Systems 18c
Cabot 4
Cadence Design Systems 18c
Cameron Ashley 21b
Campbell Soup 10b
Canandaigua Brands 6c
Capital One Financial 17a
Cardinal Health 12a
Caremark Rx 12a
Carlisle 15a
CarMax Group 21e
Carnival 14d
Carolina Power 24a
Carpenter Tech. 16b
Casey's General Stores 21e
Caterpillar 15c
CBRL Group 14a
CDW Computer Centers 8
CellStar 21b
Cendant 21e
Centex 13b
Central & South West 24a
CenturyTel 22a
Ceridian 18c
Champion Intl. 19b
Charming Shoppes 8
Charter One Financial 17c
Chase Manhattan 3a
Chevron 11a
Chicago Title 17a
Chiquita Brands Intl. 10b
Cigna 17b
Cincinnati Financial 17b
CINergy 24a
Cintas 21e
Circuit City Group 6b
Cisco Systems 18c
CIT Group 17a
Citigroup 17a
CK Witco 4
CKE Restaurants 14a
Clayton Homes 13b
Clorox 6d
CMS Energy 24a
CNF Transportation 23c
Coastal 11a
Coca-Cola 6c
Coca-Cola Enterprises 6c
Cole National 8
Colgate-Palmolive 6d
Columbia Energy Group 24b
Comdisco 18c
Comerica 3b
Commerce Bancshares 3b
Commerce Group 17b
Commercial Metals 16b
Commonwealth Inds. 16c
Compaq Computer 18b
CompUSA 18c
Computer Associates 18c
Computer Sciences 18c
Compuware 18c
ConAgra 10b
Conectiv 24a
Conexant Systems 9d
Conoco 11a
Consolidated Edison 24a
Cons. Freightways 23d
Consolidated Papers 19b
Consolidated Stores 8
Constellation Energy 24a
Continental Airlines 23a
Convergys 21e
Cooper Cameron 11b
Cooper Industries 9a
Cooper Tire & Rubber 2c
Coors (Adolph) 6c
Corn Products Intl. 10b
Corning 15a
Costco Wholesale 8
Countrywide Credit 17a
Crane 15a
Crown Cork & Seal 7a
CSK Auto 8
CSX 23b
Cummins Engine 15c
CVS 12a
Cytec Industries 4

D

D&K Healthcare Resources 12a
Dain Rauscher 17a
Daisytek Intl. 21b
Dana 2b
Danaher 15a
Darden Restaurants 14a
Dean Foods 10b
Deere 15c
Del Monte Foods 10b
Delco Remy International 15a
Delhaize America 10c
Dell Computer 18b
Delphi Automotive 2b
Delta Air Lines 23a
Deluxe 18a
Detroit Diesel 2b
Devon Energy 11a
Dexter 15d
Dial 6d
Diebold 18a
DII Group 9d
Dillard's 8
Dime Bancorp 17c
DiMon 6e
Disney (Walt) 14b
Dole Food 10b
Dollar General 8
Dollar Tree Stores 8
Dominion Resources 24a
Donaldson, Lufkin & Jenrette 17a
Donnelley (R.R.) 21d
Dover 15c
Dow Chemical 4
Dow Jones 20
DPL 24a
DQE 24a
DST Systems 18c
DTE Energy 24a
Duke Energy 24a
DuPont 4
Dura Automotive Systems 2b
Dynegy 21b

E

Earthgrains 10b
Eastern Enterprises 24b
Eastman Chemical 4
Eastman Kodak 14d
Eaton 9a
Edison International 24a
Edwards (A.G.) 17a
Edwards (J.D.) 18c
El Paso Energy 24b
Electronic Arts 18c
Electronic Data Systems 18c
EMC 18b
Emerson Electric 9a
Energy East 24a
Engelhard 16c
Enron 21b
Equifax 17a
Equity Office Properties 13b
Estee Lauder 6d
Exide 15a
Expeditors Intl. 23c
Express Scripts 12c
Exxon Mobil 11a

F

Family Dollar Stores 8
Fannie Mae 17a
Federal Signal 15a
Federal-Mogul 2b
Federated Dept. Stores 8
FedEx 23c
Ferro 4
Fifth Third Bancorp 3b
Finova Group 17a
First Data 18c
First Security 3d
First Tennessee Natl. 3c
First Union 3c
Firstar 3b
FirstEnergy 24a
FIserv 18c
FleetBoston Financial 3a
Fleetwood Ents. 13b
Florida Progress 24a
Flowers Industries 10b
Flowserve 15a
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FMC 15c
Ford Motor 2a
Fort James 19b
Fortune Brands 15a
Foster Wheeler 21a
Fox Entertainment 14b
FPL Group 24a
Franklin Resources 17a
Freddie Mac 17a
Freeport-McMoRan C&G 16
Fritz 23c
Fuller (H.B.) 4
Furniture Brands 6b

G

Galileo Intl. 18c
Gannett 20
Gap 8
Gateway 18b
GATX 23c
Gaylord Container 7b
GenCorp 2b

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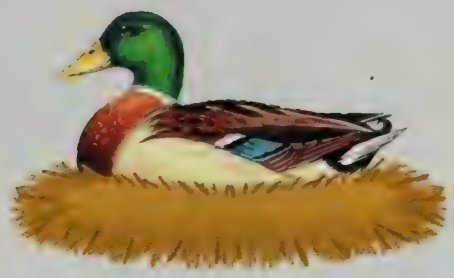

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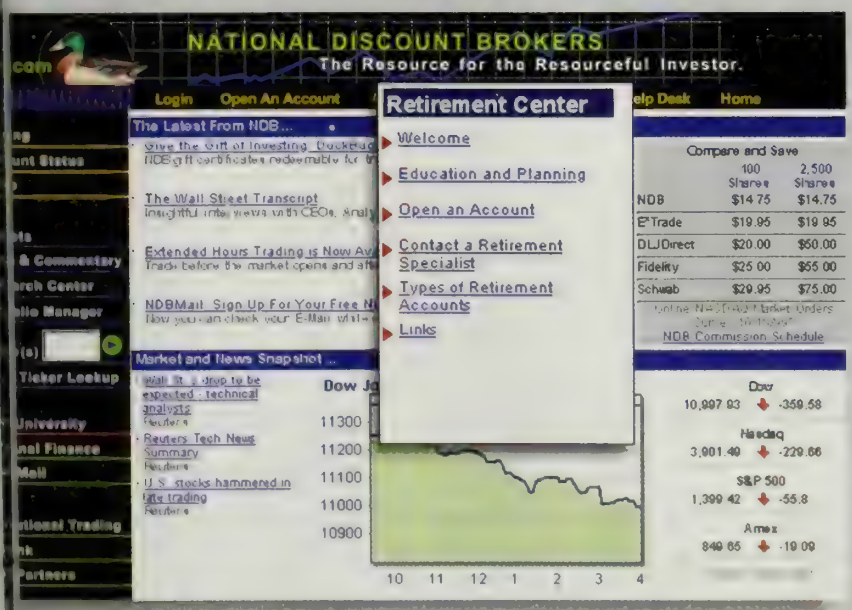

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ALPHABETICAL LIST OF COMPANIES

The number following each company name identifies the Scoreboard category under which it is listed

Genentech 12b
General Cable 16c
General Dynamics 1
General Electric 5
General Mills 10b
General Motors 2a
Geon 4
Georgia Gulf 4
Georgia-Pacific Group 19a
Gillette 6d
Global TeleSystems 22a
Golden State Bancorp 17c
Golden West 17c
Goldman Sachs Group 17a
Good Guys 6b
Goodrich (B.F.) 1
Goody's Family Clothing 8
Goodyear Tire & Rubber 2c
GPU 24a
Grace (W.R.) 4
Grainger (W.W.) 21b
Grand Union 10c
Great A&P 10c
Great Lakes Chemical 4
GreenPoint Financial 17c
Griffon 15a
GTE 22b
Guidant 12d

H

Hadco 9d
Halliburton 11b
Handleman 21e
Hanna (M.A.) 4
Hannaford Brothers 10c
Harcourt General 5
Harley-Davidson 14d
Harman International 6b
Harrah's Entertainment 14b
Harris 9b
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Hasbro 14d
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Hewlett-Packard 18b
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Hillenbrand 15a
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HomeBase 8
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Huntington Bancshares 3b
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IBP 10b
IDT 22a
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Illinois Tool Works 15c
Imation 18c
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Ingersoll-Rand 15c
Ingles Markets 10c
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ITT Industries 15c

J

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K

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Kennametal 15b
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KLA-Tencor 9c
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Knight-Ridder 20
Knight/Trimark Group 17a
Kohl's 8

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La-Z-Boy 6b
Lafarge 13a
Lam Research 15c
Lancaster Colony 10b
Lands' End 8
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Lanier Worldwide 14d
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Leggett & Platt 6b
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Lennar 13b
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LG&E Energy 24a
Liberty Financial 17b
Lilly (Eli) 12b
Limited 8
Lincoln Electric 15b
Lincoln National 17b
Linens 'N Things 6b
Litton Industries 9b
Lockheed Martin 1
Longs Drug Stores 12a
Louisiana-Pacific 19a
Lowe's 8
LSI Logic 9d
LTV 16b
Lubrizol 4
Lucent Technologies 22a
Lyondell 4

M

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M.D.C. Holdings 13b
Magellan Health Services 21e
Mail-Well 7b
Mallinckrodt 12d
Mandalay Resort 14b
Manor Care 12c
Mark IV Industries 2b
Marriott Intl. 14c
Marsh & McLennan 17a
Marshall & Ilsley 3b
Martin Marietta Materials 13a
MasTec 21a
Mattel 14d
Maxtor 18b
May Department Stores 8
Maytag 6b
MBNA 3a
McClatchy 20
McCormick 10b
McDonald's 14a
McGraw-Hill 20
MCI WorldCom 22a
McKesson HBOC 12a
McLeodUSA 22a
MDU Resources Group 24b
Mead 19b
Medtronic 12d
Mellon Financial 3a
Men's Wearhouse 8
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Mercury General 17b
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MeriStar Hotels & Resorts 14c
Meritor Automotive 2b
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Metro-Goldwyn-Mayer 14b
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Monsanto 4
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Morgan Stanley Dean Witter 17a
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Motorola 9b
Mueller Industries 16c
Musicland Stores 14d

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Nabisco Holdings 10b
Nacco Industries 15b
National City 3b
National Fuel Gas 24b
National Semicond. 9d
National Service 9a
National Steel 16b
Nationwide Financial Svcs. 17b
Navistar International 2a
NCI Building Systems 15a
NCR 18a
Neiman Marcus Group 8
New Century Energies 24a
New England Electric 24a
New Jersey Resources 24b
Newell Rubbermaid 15a
Newmont Mining 16c
Newport News Shipbuilding 1
Niagara Mohawk 24a
Nicor 24b
Nike 6a
NiSource 24a
Noble Affiliates 11b
Nordstrom 8
Norfolk Southern 23b
Northeast Utilities 24a
Northern States 24a
Northern Trust 3b
Northrop Grumman 1
Northwest Airlines 23a
Northwestern 24a
Novell 18c
NSTAR 24a
Nucor 16b
NVR 13b

O

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Occidental Pet. 11a
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OfficeMax 8
OGE Energy 24a
Ohio Casualty 17b
Old Kent Financial 3b
Old Republic Intl. 17b
Olin 16c
Omnicare 12a
Oneok 24b
Oracle 18c
Owens & Minor 12d
Owens Corning 13a
Owens-Illinois 7a

P

Paccar 2a
Pacific Century Fin. 3d
PacifiCare Health 12c
PaineWebber Group 17a
Pall 5
Pantry 21e
Park Place Entertainment 14b
Parker Hannifin 15a
Payless ShoeSource 8
PC Connection 8
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Pennzoil-Quaker State 11a
Pentair 15c
Peoples Energy 24b
Peoples Heritage Finl. 3a
PeopleSoft 18c
Pep Boys 8
Pepsi Bottling Group 6c
PepsiCo 6c
Performance Food 10a
PerkinElmer 5
Perot Systems 18c
Petsmart 8
Pfizer 12b
Phar-Mor 12a
Pharmacia & Upjohn 12b
Phelps Dodge 16c
Philip Morris 6e
Phillips Petroleum 11a
Phillips-Van Heusen 6a
Pier 1 Imports 6b
Pilgrim's Pride 10b
Pinnacle West 24a
Pioneer-Standard 21b
Pitney Bowes 18a
PNC Bank 3a
Polaris Industries 14d
Polaroid 14d
Polo Ralph Lauren 6a
Popular 3c
Potlatch 19b
Potomac Electric 24a
PPG Industries 13a
PPL Resources 24a
Praxair 4
Precision Castparts 1
Price (T. Rowe) 17a
Primedia 20
Procter & Gamble 6d
Progressive 17b
Provident Financial 3b
Providian Financial 3d
PS Co. of New Mexico 24a
PSS World Medical 21b
Public Service Ent. 24a
Pulte 13b

Q

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Qualcomm 9b
Quantum DLT & Storage Sys. 18b
Quantum Hard Disk Drive 18b
Quest Diagnostics 12c
Questar 24b
Quintiles Transnational 21e
Quorum Health Group 12c
Qwest Communications 22a

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R.J. Reynolds Tobacco 6e
Ralston Purina 10b
Rayonier 19a
Raytheon 1
Reader's Digest 20
Reebok International 6a
Regions Financial 3c
Regis 21e
Reinsurance Group 17b
Reliant Energy 24a
ReliaStar Financial 17b
Republic Services 21c
Reynolds & Reynolds 18a
Reynolds Metals 16a
RGS Energy Group 24a
Roadway Express 23d
Robert Half International 21e
Robinson (C.H.) 23c
Rock-Tenn 7b
Rockwell International 9a
Rohm & Haas 4
Ross Stores 8
Rouge Industries 16b
RoweCom 8
Royal Caribbean Cruises 14d
RPM 13a
Ruddick 10c
Ryder System 23c
Ryerson Tull 16b
Ryland Group 13b

S

Sabre Holdings 18c
Safeco 17b
Safety-Kleen 21c
Safeway 10c
Saks 8
Salton 6b
Sanmina 9d
Sara Lee 10b
SBC Communications 22b
Schering-Plough 12b
Schlumberger 11b
Scholastic 20
Schulman (A.) 4
Schwab (Charles) 17a
SCI Systems 9d
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Tribune 20
Tricon Global Restaurants 14a
Trinity Industries 23c
TRW 5
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U

U.S. Bancorp 3b
U.S. Cellular 22a
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Williams 24b
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Winn-Dixie Stores 10c
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Worthington Inds. 16b
WPS Resources 24a
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X Y Z

Xerox 18b
Xilinx 9d
Yellow 23d
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Henry Silverman's LONG RO

He's fighting to restore Cendant's reputatio

The anger was eating away at Henry R. Silverman. It was May, 1998, and at the urging of a worried friend, he went to see a psychiatrist. Cendant Corp., the company Silverman formed through a high-profile merger in late 1997, was engulfed in what would become the accounting scandal of the decade. As he sat in the psychiatrist's office on New York's Upper East Side, the therapist, who Silverman says has treated his share of executives with legal problems, asked bluntly, "Are you the vic or the perp?" Silverman didn't have to mull over this one for long. "I'm the vic," he said.

The answer speaks volumes about Silverman's life for the past year and a half. Many Cendant critics would snort at the notion that he's a victim. They believe Silverman has only himself to blame for the ill-fated merger of his franchising company, HFS Inc., with direct-marketing outfit CUC International Inc. But in Silverman's mind, it was the business equivalent of an assault. Before the shrink could ask many more questions, Silverman laid it out for him: "I said, 'This is not about Mommy and Daddy. I'm in touch with my feelings. I know how I feel. I'm consumed with rage.'"

It has been quite a comedown. Until two years ago, Henry Silverman was a Wall Street darling, the savvy dealmaker who built HFS into a giant franchiser of such brands as real estate brokerage Century 21, hotels like Ramada and Howard Johnson, and the Avis rent-a-car system. Silverman earned a reputation for delivering stellar earnings and stock price g through a steady stream of acquisitions. With a sharp eye detail and a relentless focus on financial performance proved a competent operator, quickly integrating indep dent businesses such as real estate brokerages and a m gage-origination operation. While there was often as much troversy as admiration surrounding Silverman's frenzied dealmaking, few doubted his ability to end up on the winning side of a transaction.

EXIT STRATEGY. The CUC merger was to have been Silverman's masterstroke. He saw CUC, a direct-marketing outfit that sold memberships in discount buying clubs such as Shoppers Advantage and Travelers Advantage, as the perfect partner. The idea was to feed the names of all the customers HFS channeled through its hotels and real estate brokerages into the CUC direct-marketing machine. CUC would then sell them memberships in its discount-buying clubs and, eventually, financial services such as insurance. Silverman also figured CUC's team, viewed as Internet gurus for creating the online shopping

SILVERM -STEP

1 SHORE MP-START FINANC ROWTH

Cendant sold off noncore busines over the past ye a half, for $4.5 It has used $3 to repurchase 2 its shares since December, 199 the stock is stil bumping along $18, less than '98 high.

PHOTOGRAPH BY JOHN S. ABBOTT; DIGITAL ILLUSTRATION BY JOE CALVIELLO/BW

Cover Story

D BACK

BY AMY BARRETT

site Netmarket, could help extend his brands to the Web.

It wasn't just the prospect of synergies that was driving the deal. Everyone knew that dealmaking provided much of the fuel for Cendant's roaring stock price. On their own, HFS's businesses would have generated 10% to 15% in annual earnings growth, analysts had predicted. That was decent, but certainly not the 20%-plus growth rate Wall Street had come to expect from Silverman. He knew if he could continue to deliver higher growth from a bigger company, he would be rewarded with an even richer price-earnings ratio. Joining with CUC would also help him counter fears on Wall Street that his company was vulnerable to a recession—discount buying clubs, after all, were seen as countercyclical.

For Silverman, now 59, the deal was also an exit strategy of sorts. In January, 2000, he was to move over to the post of chairman and hand the Cendant CEO reins to CUC founder Walter A. Forbes. Silverman and his wife of 22 years, Nancy, would be sending their teenage daughter off to college then. He envisioned a less frenetic pace, spending shorter workdays

-STEP

MP-START ROWTH

Cendant's ances Silverman ome smaller ns. g on prices, add more ds to the Cendant's e recovers, mmate r may e pace.

PLAN

3 TAP THE POWER OF THE INTERNET

Silverman is hoping to draw on Net expertise of Liberty Media, which holds a $400 million Cendant stake. That could cut such costs as finding new discount-club members, and build traffic for ventures like move.com, Cendant's real estate portal.

THE CENDANT SAGA

Savvy dealmaker Silverman built HFS into a giant franchiser of brands such as Century 21, Ramada, and Avis. His merger with CUC was to have been his masterstroke. But that dream evaporated in April, 1998, with revelations of accounting irregularities

1990 Henry Silverman buys the Ramada and Howard Johnson brands.

1992 After taking HFS public, he adds brands like Super 8 Motels and real estate brokerage Century 21.

1997 HFS merges with CUC International, marketer of discount membership clubs, to form Cendant. Silverman becomes CEO, and CUC chief Walter A. Forbes becomes chairman. They agree to swap jobs in 2000.

APRIL 199 dant stock r all-time high 41 3/8. Days drops 46% when com reveals that CUC may inflated earnings by up $115 million. That tri investigations by the S and U.S. Attorney in N

JULY 1998 The probl worsen when Cendant reveals that the '97 reduction could reach million. Forbes resign taking a severance pa of $35 million and op valued at $12.5 milli Nine Forbes allies res from the board.

on long-term strategy and hunting for deals, no longer tied down with the headaches of managing a huge company. There would be more time for tennis, indulging his love of historical novels, and relaxing in South Florida, where the couple was hunting for a new home. "He'd have some time to enjoy the fruits of his business career," says Nancy.

That plan, of course, evaporated in April, 1998, along with nearly $13 billion of Cendant's market capitalization. That's when New York-based Cendant first uncovered massive improprieties in the former CUC. A subsequent investigation by Cendant's audit committee revealed that CUC executives had used a variety of "irregular" accounting entries to inflate earnings before charges by $500 million over three years. Errors jacked up earnings an additional $200 million. Forbes resigned from Cendant in July, 1998. Through a spokesperson, he declined to comment on any aspect of this story.

Cover Story

For Silverman, the personal toll was heavy. "My own sense of self-worth was diminished," he recalls. Close friends worried that his anger would consume him. Darla D. Moore, co-manager of Goff Moore Strategic Partners LP and wife of billionaire investor Richard E. Rainwater, recalls a dinner shortly after the scandal broke. She was seated next to Silverman, and as guest speaker Henry Kissinger got up to speak she looked at her friend, who seemed suddenly quite gray. "As bad as it seems, nobody has died," she leaned over to whisper to him. "But if you don't get some relief [from the pressure], you'll be the first to go."

Silverman has found ways to channel his rage. On the advice of his psychiatrist—he met with him twice—Silverman finds time to exercise every day, usually hitting the gym after work. But there is a professional goal that also keeps Silverman going: his quest for redemption. Although he claims to spend little time fretting about his legacy, friends say he is driven by the desire to rebuild his credibility. Money manager Frederick R. Kobrick, who had a short-lived deal in 1998 for Cendant to market his funds, recalls Silverman's words shortly after Forbes resigned: "Fred, I'm going to get my reputation back."

That won't be easy. While most big shareholders who were burned in the Cendant stock meltdo don't blame Silverman directly, many are critical of the diligence he did before the CUC merger. How, they wond could the master dealmaker have failed to detect such a m sive problem? Others fault him for assembling an unwie board, and many still fume over the board's 1998 decision reprice millions of worthless options for Silverman and ot senior managers. Silverman insists that no amount of sear ing could have turned up fraud and that a large board was inevitable result of the merger. He says now he regrets cepting the repricing.

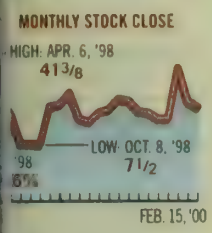
While Silverman's reputation is far from rebuilt, his f goal—to stabilize Cendant—has been achieved. He sold noncore assets to help finance an aggressive $3 billion st

While most shareholde burned in the Cendar meltdown don't blam Silverman direc many are critical of hi due diligenc before the C merger

SILVERMAN (RIGHT) MEETS W INVESTOR LAWRENCE AURIAN

PHOTOGRAPHS, CLOCKWISE FROM LOWER LEFT: BY LISA QUINONES / BLACK STAR (2), JOHN S. ABBOTT

NT'S WILD RIDE



OMBERG FINANCIAL MARKETS

1998 Cendant s its investigation, ds CUC's income ed by $500 million om 1995 through counting errors d income by an l $200 million.

OCTOBER 1998 Stock hits a low of 7½. Silverman later tells shareholders he'll focus on selling businesses and buying back shares.

1999 Cendant sues Ernst & Young, former auditor for CUC, accusing it of "gross negligence," and strikes deal to settle a shareholder class action for $2.8 billion. Later, Liberty Media buys Cendant shares and warrants for $400 million, and Chairman John Malone will join Cendant's board.

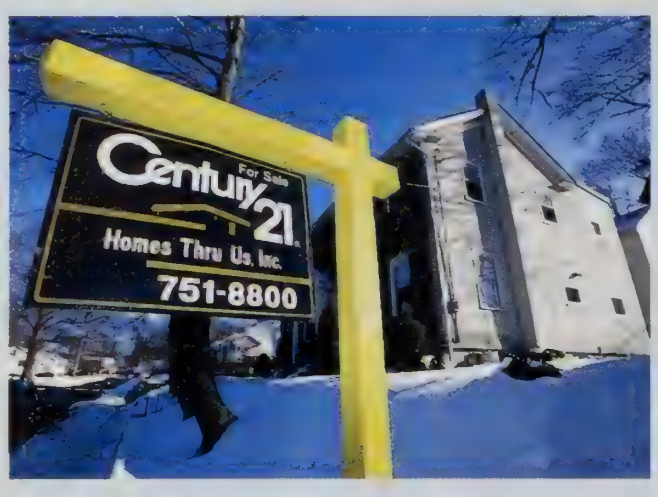
chase plan. Cendant's operations today are centered id hotel and real estate franchises, along with the dis- buying clubs and other services such as tax preparation. rman also sought to swiftly settle a wave of shareholder its. The result: a preliminary deal on Dec. 7 to pay billion to settle nearly all of the litigation. Cendant ot admit any liability.

hough the scars are still fresh, there are signs Silverman gaining some of his old swagger. The most obvious ex- e is the deal he struck in December for Liberty Media to buy $400 million of Cendant stock and warrants. Lib- will work with Silverman's team to expand the reach of ant's brands on the Web. Silverman sees the partnership Liberty Chairman John C. Malone as a vote of confidence in his leadership from a notoriously tough investor. "We don't need the capital," Silverman says. "We need the credibility." Sure enough, investors responded to the legal settlement and the Liberty deal by bidding Cendant's stock price up to more than 26 in late December, from a 52-week low of 14⅝ the month before.

But Cendant still faces daunting challenges. For one thing, analysts warn that the company may see slower growth this year in a number of businesses, including the mortgage operation, where higher rates have slowed originations and squeezed margins. That's the biggest reason why Cendant's stock has settled back down to about 18. Investors also may have been spooked by an announcement that Silverman will begin exercising 7 million options that expire in 2001—and he hasn't said whether he'll hold or sell those shares. Meanwhile, Silverman is having to play catch-up on the Internet, where he wants to build Web sites to drive customers to his brands. The bottom line: Cendant's earnings before interest, taxes, and depreciation—including losses generated by its new real estate Web portal—should rise just 4%, to $1.8 billion, in 2000, says Morgan Stanley Dean Witter analyst Michael Happel. Revenues will likely be down 11%, to $4.8 billion, he says, because of the asset sales.

Silverman is bent on convincing investors the company can still take off. He says it is not too late to make up lost ground on the Net, and he expects that his diverse holdings and ability to gain market share will offset any impact from a slower housing market. To spread the word, he set out in February on a two-week road show, visiting about 50 current or potential shareholders.

"ONE-TIME MISSTEP." As he makes the rounds, Silverman's certain to get questions about whether he will ultimately sell off Cendant, a move some investors believe is likely. Silverman clearly listens to what investors have to say. The Liberty deal, for example, came after David Siminoff, analyst at Cendant investor Capital Research & Management Co., suggested that Silverman talk with Malone. "It may be impossible for Henry to regain the luster he had in the go-go HFS days," says Craig Bibb, managing partner at Jasper Funds, a Cendant



CENDANT'S BRAND PORTFOLIO

DATA: CENDANT CORP., MORGAN STANLEY DEAN WITTER

TOTAL REVENUES

$4.8 BILLION

REAL ESTATE

$1.5 BILLION

Franchiser of Century 21, Coldwell Banker, and ERA real estate brokerages; mortgage operation; and relocation service

DIRECT MARKETING

$1.5 BILLION

Sells memberships in discount clubs like Shoppers Advantage, products like specialized insurance

TRAVEL

$1.2 BILLION

Franchiser of Ramada, Days Inn, other hotels; time-share resort exchange service

OTHER

$0.6 BILLION

Franchiser of Jackson Hewitt tax-preparation offices; owns National Car Parks lots

shareholder. "But if he can get Cendant's stock price moving again, investors are likely to view the CUC deal as a massive, but one-time, misstep."

If Henry Silverman once thought he could escape the day-to-day grind, it's a dream long departed. Cendant's top 10 executives have gathered in November, 1999, at the midtown offices for their monthly meeting. After Stephen P. Holmes, head of Cendant's travel division, discusses his unit's operations, Silverman zeros in on one figure: revenue per available hotel room. The figure is declining for the industry as a whole. But Holmes's data shows it trending above budget for some Cendant chains. Good news, right? It doesn't sit right with Silverman. He grills Holmes for several minutes, but the executive can't explain it. Later, Holmes does some digging and determines that a new computer system that more accurately captures revenue figures—not a shift in business fundamentals—is responsible. He fills in his boss during their daily phone conversation, which Silverman prefers over e-mail or memos. "If you don't call him," Holmes says, "he'll call you."

Cover Story

Silverman is a study in contrasts. Formal, almost aristocratic in his bearing, he favors monogrammed shirts and a plush office that's sprinkled with Georgian antiques. But his speech is blunt, with a manner more like a street fighter than the prep school-educated son of privilege that he is. The Silvermans are regulars on the New York social circuit, with close friends like GOP fund-raiser Georgette Mosbacher.

But Silverman is hardly gregarious, with wife Nancy making sure they can cut out of most parties by 10:30 p.m. To let his hair down, Silverman sometimes holds poker games when he's on the road with his management team. "There is nothing people like more than to take a couple hundred dollars off the boss," he says. His biggest passion is the New York Yankees, viewed from a box seat at Yan Stadium. Silverman's dream as a kid was to play cen fielder for the team. "But my skill didn't match my ambiti he notes.

Instead, he took an early interest in his father's worl business. Herbert R. Silverman, now 87, was CEO of commercial finance company Talcott National Corp. The e Silverman recalls taking his teenage son on a business when, after one presentation to analysts, Henry quizzed on why he had said certain things. "For a 15-year-old was amazing," he says. Silverman's own drive seemed stem from the desire to emerge from his father's shad "You want to be recognized for what you achieved rat than what your parents achieved," he offers.

Family connections didn't hurt Silverman's early career. ter graduating from the University of Pennsylvania l School in 1964 and a stint in the Naval Reserve, Sil man's father got him a job as assistant to Steve Ross, was building what would become Warner Communicati Silverman later went to the investment banking firm W Weld & Co. He first drew Wall Street n in the 1980s as a sidekick to corpo raider Saul Steinberg at his Reliance G Holdings Inc.

New York State's McCall: Repricing Silverman's options was "egregious"

There was no denying Silverman's k for good timing. While at Reliance, snatched up the Days Inns of America hotel chain in 1984 in a $600 million le aged buyout. Silverman managed to sell 1989, at the peak of the hotel market, $765 million. Days Inns, saddled with h debt, filed for bankruptcy two years l And Silverman, now with HFS, walked in and bought it a second time—minus s real estate and a mortgage portfolio– just $259 million.

Still, he was always playing second f to people like Steinberg and Stepher Schwarzman and Peter G. Peterson, foun of the investment banking firm Blacks Group, where Silverman worked. So whe began building HFS in the early 1990s,

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N AMERICAN, COACH HAS MORE CLASS.

Detractors charged that the creation of Cendant produced a huge board heavy with insiders

SILVERMAN (RIGHT) MEETS WITH SENIOR MANAGERS

verman didn't generate tremendous industry buzz. "He was more of a walk-on," says John W. Ballen, portfolio manager of MFS Emerging Growth Fund, who bought into HFS's initial public offering in 1992.

That made the later success of HFS all the sweeter. Silverman cobbled together a franchising powerhouse that included hotel brands Howard Johnson and Days Inn, real estate brands ERA and Century 21, as well as mortgage origination services. The company was light on hard assets—HFS didn't own the hotels or the local broker's office. But the result was a cash machine. Helped by Silverman's rapid-fire dealmaking, HFS posted years of stellar earnings growth. Its shares soared from a split-adjusted IPO price of 4 in late 1992 to 77⅞ at the time of the merger with CUC. That 1,836% increase dwarfed the 120% rise in the Standard & Poor's 500-stock index over the same period.

Cover Story

Silverman was finally front and center, winning nonstop accolades from investors. "He was golden," says Lawrence Auriana, portfolio co-manager of the Kaufman Fund. For Silverman, the wait had been worth it: "It's like a guy who is 40 years old being asked to pitch the opening game of the World Series, and he pitches a shutout."

CHUMMY BOARD. But four months after closing the deal with CUC, that streak came to an abrupt end. At an Apr. 9, 1998, meeting, two CUC accountants made a stunning disclosure to Cendant's then chief financial officer, Michael P. Monaco. According to an investigation by Cendant's audit committee, the accountants outlined adjustments that CUC managers made to inflate 1997 results. Monaco, who now runs the company's direct marketing operation, called Silverman to deliver the bad news. His initial response was disbelief. Nancy Silverman recalls: "He got a knot in his stomach, but I think in his heart he thought there is something somebody isn't seeing, that this can't be."

That weekend the Silvermans celebrated Passover with Apollo Advisors founding principal Leon D. Black's family in Bedford, N.Y. Silverman couldn't eat and had a hard time sitting still. "He was uncharacteristically green and very quiet," Black recalls. Silverman knew the accounting problems would have to be disclosed and that the market's reaction was likely to be swift and brutal. "I knew a firestorm was descending on me at warp speed," Silverman says.

It turned out to be worse than that. Late on Apr. 15, Cendant put out a press release saying that 1997 earnings before charges were overstated by as much as $115 million and that the company might have to restate earlier results as well. The next day, the stock plummeted more than 46%, to 19⅛. Bu subsequent investigation by Cendant's audit committee vealed the accounting irregularities were larger than origin thought and that 1997 earnings would have to be cut by $ million after taxes. By early October, the stock was at 7½

Plenty of investors who saw their stock crater beli that Silverman bears some responsibility for the Cend fiasco. Some question whether his team did adequate ho work on the CUC deal. "Obviously, the due diligence wa sufficient," says MFS's Ballen, who still holds Cendant stoc his Emerging Growth Fund.

But Silverman rejects charges that he was remiss. " not defensive about the due diligence we and our advis and other professionals performed," he says. "The fac that no amount of diligence would have discovered fraud." Sources close to Cendant say that because the d was structured as a merger of equals, neither side had leverage to demand unfettered access to each other's bo Silverman's team did ask for certain nonpublic finan information, including figures on the profitability of eac CUC's buying clubs, the sources say. But CUC ex argued that if the deal fell through, that could give HFS advantage.

In the wake of the scandal, Silverman and the Cend board came under fire. Detractors charged that the Cend deal resulted in a huge board heavy with directors who had business ties to Cendant or Forbes. Silverman says 28-member board came about because he didn't want to move any HFS directors and in a merger of equals, b sides needed equal representation. Did he think the direc were too chummy with management? "No one complai about corporate governance when in five years [HFS] s went from $4 to $80," he counters.

Many investors were also irked by the board's decision reprice 17.2 million of Silverman's options to his benefi September, 1998. Although he can't exercise all of them u 2002, at Cendant's current price Silverman's new opt have a market value of about $85 million. True, one-thir Siverman's options were revoked in the repricing, an third were only exercisable at more than twice the sl price at the time. And while all of Silverman's original opt were completely vested, the repriced ones vest over sev years. Still, many investors felt the action had a let-them-cake quality. "That was egregious," says New York S Comptroller H. Carl McCall. New York owns about 2.5 mi shares. Brian Mulroney, the former prime minister of Car who serves on the Cendant board and was on the com sation committee when the options were repriced, says move was made in order to retain Cendant's managen

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HENRY R. SILVERMAN

BORN 1940, Brooklyn

EDUCATION B.A., Art History, Williams College, 1961; Law Degree, University of Pennsylvania, 1964.

CAREER Made name as investment banker doing deals in the '80s at Reliance Group Holdings and later at Blackstone Group. Built franchising giant HFS Inc., took it public in 1992, and engineered ill-fated merger with CUC International in 1997, forming Cendant.

VALUE OF CENDANT STAKE IN EARLY APRIL '98 $1.1 billion

VALUE OF CENDANT STAKE TODAY $530 million, including unvested options

LEAST FAVORITE GIFT A T-shirt commemorating the merger from CUC chief Walter Forbes showing Cendant's $30 billion market cap, with an arrow pointing up to $100 billion.

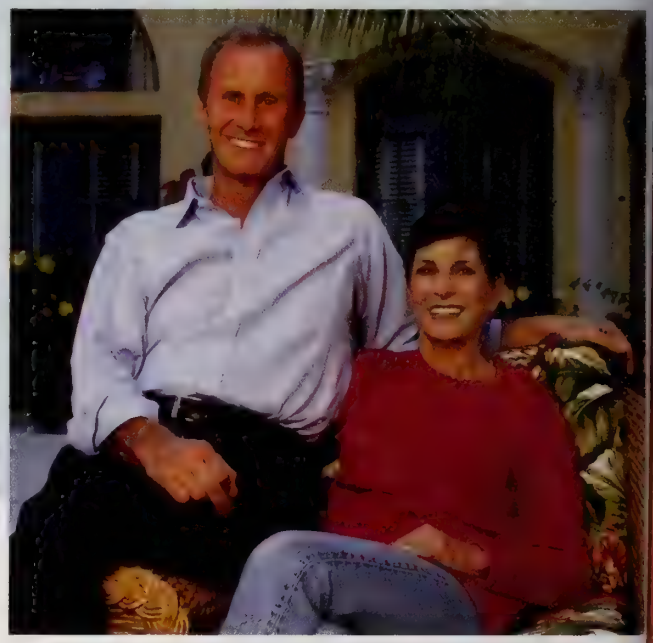
BIGGEST VICE Enjoys the occasional vodka martini and expensive cigar.

BOOKS HE'S READING Biographies of Vince Lombardi and George Patton

FIRST THING HE DOES AT NIGHT Drops his bag and gets down on all fours to play with his Maltese dogs, Ivory and China. "They love me. They don't care if the stock went down."

FAMILY Married to second wife Nancy for 22 years. Three daughters, two from the earlier marriage, and two grandchildren.

SILVERMAN AND WIFE, NANCY, IN SOUTH FLORIDA: LEARNING TO RELAX



team. "We did what was in the interest of shareholders," Mulroney says.

Still, shareholders exacted some retribution in the settlement of their lawsuit. Under the terms, Cendant agreed that a majority of board seats will go to independent directors, directors will be elected annually, and future repricings will be approved by shareholders, among other changes. Silverman now admits it was a mistake to accept the board's repricing: "I should have said, 'Thank you very much, but I'm turning this down because I will become the lightning rod for this issue.' And I was."

Cover Story

It is a Tuesday morning in January, and Silverman is being put through his paces by Rufus Graham, a personal trainer. As Silverman does a series of sitting chest presses, Graham stands over him barking like a drill sergeant. "Drop your shoulders. Breath out. Use your weight. Come on, you're in control." Later, during a break, Graham is boasting about the change in Silverman's condition since he started training. His bench press, for instance, has risen from 65 to 150 pounds. "It's not fun. It hurts," Silverman says. "But you like the results."

The physical makeover has been almost as grinding as the overhaul of Cendant. Every day, Silverman puts himself through some physical exercise, be it weightlifting, aerobics, or tennis. "It was like he was preparing for battle," remarks Richard A. Smith, CEO of Cendant's real estate division.

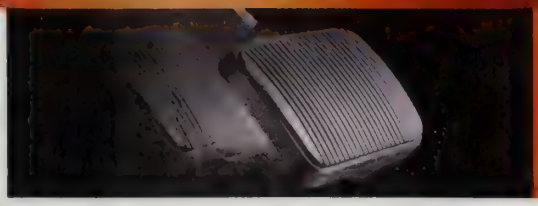
In a sense, he was. One close friend, who spoke not for attribution, says Silverman's anger at the former CUC management sometimes reached the point of "fixation." While he won't speak of Walter Forbes directly, those close to him say Silverman has only contempt for his onetime partner and his team. Every senior manager in the former CUC's Stamford (Conn.) offices has been replaced. Attorneys for several CUC executives did not return phone calls, or declined to comment. A lawyer for former CUC President and Cendant Vi Chairman E. Kirk Shelton said his client did not participate and had no knowledge of any accounting irregularities. S verman, though, is clearly hoping the government investigati will result in indictments. "Somebody committed crimes her he says. "We'd like to see those somebodies punished."

Sources close to Silverman say his anger also extended outsiders involved with the deal. According to one Silverm ally, a once close friendship with Bear, Stearns & Co. Vi Chairman Michael L. Tarnopol, a key HFS investment bank was strained in the wake of the accounting blowup. Be Stearns received a $30 million fee for advising on the me er, according to filings related to the deal. Silverman a Tarnopol declined to comment on their relationship. Be Stearns would not comment on any aspect of the deal.

Silverman is also going after Ernst & Young, CUC's countants. In January, 1999, Cendant filed suit, charging t the firm was grossly negligent in its audit of CUC. Ernst Young has filed a countersuit, denying Cendant's allegati and contending that the company's "efforts to blame its o fraud on E&Y are spurious and wholly unfounded."

The stress led to a period of relative isolation for the S vermans. They curtailed their social life in the year after t accounting scandal, reemerging only in late 1999. "We did have the heart to sit and talk about it," says Nancy Silv man. They spent a lot of time over the past two summers a house rented from Mosbacher in Southampton, N.Y. was a refuge against the waves that would batter Cenda

The first was Russia's financial crisis in late summer 1998, which triggered a flight to quality in the credit mark Rates on Cendant's more than $3 billion in commercial pa



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Silverman is betting Cendant's deal with Liberty Media will make up ground on the Net

SILVERMAN WORKS OUT HIS RAGE IN THE GYM

jumped from about 5% to 5.3%. Things got worse in October when the company's debt ratings were cut. For a few days, Cendant could only borrow overnight in the commercial paper market. That meant Cendant was rolling over hundreds of millions of dollars in that paper daily. The company managed to cut back on its commercial paper borrowing by about $2 billion.

Silverman also had to scramble to keep the businesses he was trying to sell from unraveling. In September, 1998, he flew to the West Coast, meeting with employees at Sierra On-Line Inc., a software outfit that he wanted to unload. The situation was volatile. Richard K. Thumann, then Sierra's general counsel, says executives felt CUC, which had purchased Sierra in 1996, had mismanaged the integration of Sierra with other CUC software operations. Silverman let them vent, and then started hammering out new compensation packages—including small ownership stakes—that encouraged people to stay on. "He gave us the tools to hold that company together," Thumann says.

Cover Story

The asset sales continued into 1999, ultimately raising $4.5 billion. But while the December shareholder settlement removed a major uncertainty, there has been no rush back into the stock. Once CUC's massive accounting irregularities were reversed, it was clear the membership business wasn't the profit engine originally expected. So the cross-marketing bonanza Silverman had envisioned from driving HFS customers to those clubs won't provide much of a payoff. Higher interest rates will hurt, too.

"They've had the wind at their backs with a booming housing market for the last few years," says Morgan Stanley Dean Witter's Happel. "In the next year or so, it will be in their faces."

It's almost like the good old days. On Dec. 16, 1999, Silverman is heading into New York to appear on CNN's Moneyline to talk about his favorite subject: deals. Cendant announced earlier that day that Malone's Liberty Media was investing $400 million. Malone personally will buy 1 million shares and join Cendant's board. Traffic is snarled heading into the Lincoln Tunnel, but Silverman seems not to notice. He's energized, talking about the possibilities the Liberty deal offers and the congratulatory calls he has gotten from some big investors. Their enthusiasm is easy to understand: Cendant stock jumped 40% on the news. "I haven't had calls like that in 20 months," he says.

Silverman is betting the Liberty deal will help Cendant make up ground on the Net. "They really fell behind," says Seema Williams, senior analyst with Forrester Research Liberty will work with Silverman's team to exploit a num of Web possibilities. That could include delivering broadb services built around Liberty's cable networks—such as Travel Channel unit of Discovery Communications Inc., w is 49% owned by Liberty—to the millions of customers dant reaches through its hotels and time-share resorts. " stock price was down, and he has great assets," says Lib CEO Robert R. Bennett. "I would imagine there are all k of things down the road that we can do."

Silverman envisions a host of other Web connections. dant is building a real estate portal dubbed move.com. The featuring services from house-hunting to furnishing a home, was launched on Jan. 27, and Cendant plans to iss tracking stock in April. But it faces tough competitors cluding Homestore.com Inc. and MSN HomeAdvisor. Cen also has the option to take a big stake in Netmarket, struggling Internet shopping service it spun off last year. for that stake to pay off, Netmarket's management mus the unit's high member turnover and improve its perform

Given the challenges Silverman faces, some Cendant w ers think he may not be done selling. Cendant's stock ha recovered enough for him to resume a major buying s but he clearly wants to redeem himself in shareholders' "If there are pieces they can sell for high multiples, sure they'll consider that," says Bibb at the Jasper F Others say they wouldn't be surprised to see Liberty b of Cendant. Cendant and Liberty declined to comment. Silverman doesn't get emotional at the thought of selli piece, or even all, of Cendant. "If somebody wants to m fair offer, fine," he says. "But if someone wants to stea company, we'll fight fiercely."

Indeed, Silverman's friends say he has recaptured mu the old bravado. Last fall, Michael A. Leven, who worke Silverman at Days Inns and now heads competitor Franchise Systems Inc., stopped by Cendant's office t how his former boss was holding up. When Silverman w into the room, he smiled broadly and challenged his vi "Are you here to buy or are you here to sell?" "Well, He Leven said, "I guess you're back." Now, Silverman just h prove that to Cendant's battered investors.

With Stephanie Anderson Forest in Dallas and Tom D in New York

The Cover Story continues on pag

BusinessWeek ONLINE

For an interview with Henry Silverman, see the Feb. 28 issue online at www.businessweek.com.

PCs and laptops talk real big about business.

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'JUST GOING ABOUT HIS BUSINESS'

While eating breakfast last year at the ritzy Berkley Hotel in London, Cendant Vice-Chairman Stephen P. Holmes spotted a familiar face across the dining room. It belonged to Walter A. Forbes, the former Cendant Corp. chairman who resigned under pressure in 1998 amid an explosive accounting scandal. Before Holmes could go over and say hello, Forbes was gone. "It's a shame. I really wanted to ask him what he's been up to," says Holmes.

Cover Story

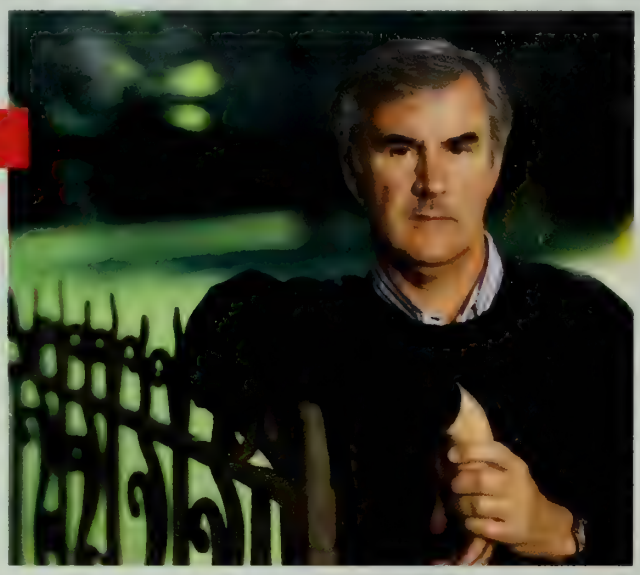
Quite a bit, as it turns out. Forbes, 57, is pursuing investment opportunities, seemingly undeterred by investigations that are under way by the U.S. Attorney in Newark, N.J., and the Securities & Exchange Commission. Authorities are trying to determine the role played by top executives in Cendant's accounting irregularities, say sources familiar with the probes.

NOT TALKING. Forbes seems determined to stay out of the spotlight that followed him two summers ago when a Cendant audit committee report found that he and his senior executives "must bear responsibility" for the scandal. To handle matters related to the investigations, Forbes has hired Washington (D.C.) defense lawyer Brendan V. Sullivan Jr., whose clients have included Oliver North and former Housing & Urban Development Secretary Henry Cisneros. After the audit committee released its report, Forbes released a statement saying: "There is and was no way I could or should have known about the fraud." After repeated requests for interviews and the submission of written questions to his attorney, Forbes declined to comment for this story.

Friends say Forbes has remained focused on his passions—technology startups and golf. He has the resources to devote to them, having walked away from Cendant with a severance package that included $35 million in cash and $12.5 million worth of stock options. "He's maintaining an equilibrium. He doesn't talk much about [the investigation]," says Edmund A. Hajim, chairman of ING Barings LLC and a Forbes friend and business partner. "He's just going about his business."

That business includes backing an Internet-related venture—not surprising for Forbes, who was touting the idea of "electronic shopping" as far back as the '70s. Forbes is an investor in venture-capital firm FG II, which is among the early backers of LivePerson Inc., a provider of e-commerce customer service and sales support. The company, which hopes to raise up to $57.5 million in a public offering soon, also counts Goldman, Sachs & Co., Allen & Co., and Henry Kravis among its investors. E. Kirk Shelton, 45, a key Forbes ally and a former vice-chairman of Cendant, whom the company says it terminated in August, 1998, acted as LivePerson's chief operating officer on a consulting basis. Through his lawyer, Shelton said he did not participate in and had no knowledge of Cendant's accounting problems.

Forbes also is developing the new Queenwood Golf Club, an exclusive country club in Ottershaw, a small town west of London, says course designer David McLay Kidd. Forbes is teaming up with Frederick Green, the former chairman of Cendant's audit committee. It's not the first time the pair has worked together. They previously built a golf course in Vail, Colo., and along with Hajim, one on Nantucket in Massachusetts. Green did not return phone calls.



A hefty severance package allows Forbes to pursue his two passions–startups and golf

FORMER CENDANT CHAIRMAN WALTER FORBES, WHO RESIGNED IN 1998

Meanwhile, the Cendant probe, directed by Newark U.S. Attorney Robert J. Cleary, is gaining momentum. Sources say prosecutors are in discussions with lawyers for several former CUC and Cendant executives including Vice-President Casper Sabatino, 47, and Senior Vice-Presidents Cosmo Corigiliano, 40, and Anne M. Pember, 40. Lawyers for Corigiliano and Pember declined comment. Sabatino's lawyer did not return calls. Former CUC controller Steven Speaks has been cooperating with prosecutors, says his lawyer, James A. Plaisted.

THE GOOD LIFE. Current Cendant execs declined to comment on the probe. And CEO Henry Silverman won't talk about Forbes. But sources close to Cendant say he is irked by Forbes's apparent enjoyment of the good life. Silverman says he has spent the past two years "cleaning up somebody else's mess."

At least one more showdown between Forbes and Silverman is likely. U.S. District Court Judge Jed S. Rakoff is expected to rule in coming weeks on whether Forbes must pay back $2.1 million of travel and entertainment expenses that Cendant says he improperly fiied. The disputed expenses include stays at swank hotels and rides on a leased jet. Forbes, through an attorney, said in 1998 those expenses were above-board. If Forbes loses, Cendant execs hope they can rescind his resignation, fire him for cause, and recover his severance package. Such a blow could give Forbes a whole new reason to focus on his entrepreneurial side.

By Tom Lowry, with Amy Barrett in New York

hook.

How to catch a fish:

Take a line, add a hook,
attach a piece of bait.

Fish.

fig. 1

sinker.

How to catch a fish:

fig. 1

Buy a yacht.

Hire a famous
ocean explorer.

fig. 2

fig. 3

Buy the original
copy of *Moby Dick*.

fig. 4

Do focus groups
about fish.

fig. 5

Go shopping for the
finest fishing poles made,
which of course require
designer clothes to match.

fig. 6

Over expensive seafood dinner,
make plans to fish in 8 months.

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ACCOUNTING

THIS SCANDAL CHANGES EVERYTHING

Breaches of auditor independence at PWC could lead to an overhaul of the Big Five

It all started with two letters, one to Coopers & Lybrand, and the other to the Securities & Exchange Commission, accusing Coopers' employees in a Tampa (Fla.) office of owning stock in companies while auditing their financial statements. Those letters set in motion what has become the most massive investigation ever of a U.S. accounting firm. The examination uncovered widespread violations at the world's largest accountant, PricewaterhouseCoopers. And while the SEC-ordered report on the investigation is barely six weeks old, it is already leading to major changes in the U.S. accounting industry.

What has become clear is that auditing and consulting, the mainstays of the business, cannot live comfortably in the same house. PWC is close to announcing a major restructuring that will eventually lead to the sale or initial public offering of its large consulting business, according to a senior partner. PWC insists the restructuring has nothing to do with the widespread violations of auditor-independence rules. But that argument was more compelling before lapses on the accounting side came to light. Besides, such a move would go a long way toward eliminating potential conflicts of interest.

Regulators are putting pressure on the entire profession. The SEC has directed the accounting industry's watchdog, the Public Oversight Board, to investigate seven other major accounting firms. The Big Five are being required to invest in computer systems that will allow them for the first time to track employees' investments in order to guard against conflicts of interest. And other major firms are likely to separate their consulting and auditing businesses in coming months. The reason the SEC wants these changes is simple: Auditors may hesitate to issue tough opinions on companies' financial statements when they are courting consulting busine

What went wrong at Pricewate houseCoopers? Although many of t 8,064 violations at PWC were technical nature, the bulk of the infractions bro accounting's most fundamental rule: th partners may not own stock in comp nies audited by their firm. Half of PW 2,700 U.S. partners owned stock companies the firm audits, according the report by law firm Lankler Siffert Wohl done at the behest of the SE The report also revealed that 1,885 pe ple at the firm—1 in every 20 emplo ees—committed violations, prompting Lankler Siffert to conclude that PWC has serious structural and cultural problems. The vio-

HALF OF PWC'S U.S. PARTNERS OWNED STOCK IN COMPANIES THE FIRM AUDITS

PWC WRESTLES WITH COMPLIANCE ISSUES

SEPT. 1997 Price Waterhouse and Coopers & Lybrand announce merger.

FEB. 1998 SEC begins investigating allegations that several employees at Coopers' Tampa office owned stock in companies the firm audited.

JULY 1, 1998 Merger completed. PricewaterhouseCoopers becomes world's largest accounting firm.

NOV. 5, 1998 PWC CEO James Schiro issues memo saying two partners and a manager had been asked to resign because they broke rules about the independence of auditors.

JAN. 14, 1999 SEC orders PWC to submit to outside review of its compliance with independence rules.

JULY 14, 1999 SEC deadline for PWC to implement computer system to track shareholdings of partners and top managers.

JAN. 6, 2000 SEC report reveals more than 8,000 violations of independence rules and says half of PWC's partners owned shares in companies the firm audited.

FEB. 2000 Accountancy trade association sets rules requiring other major CPA firms to invest in computer systems to track employee shareholdings.

DATA: PRICEWATERHOUSECOOPERS, SECURITIES & EXCHANGE COMMISSION

ns went all the way to the top—6 of artners responsible for the firm's ndence policies broke the rules, as 31 of the firm's 43 senior partners, ding 4 who had more than 20 vio- ns apiece. Five partners were forced esign, a sixth is on the way out, five other managers and staffers dismissed.

ow could a leading firm of PWC's te get itself into such a mess? "The nitude [of the violations], to put it kly, has startled everyone," says g W. Corso, counsel to Chairman ur Levitt Jr. at the SEC. The firm's executive, James J. Schiro, de- d to be interviewed for this story. in PWC's defense, Kenton J. Sicchi- its managing partner for firm in- ndence, said during a series of hy interviews: "We thought peo- vere taking care of this." Peter B. k, another senior partner who ed closely with Sicchitano, said the violations can't be pinned on self-interest, adding: "These are not people who did things intentionally."

PWC says that many of the violations point to problems with the rules themselves. One partner, for example, was cited because his children each had a single share of Walt Disney Co. stock framed and hanging in their bedrooms.

TINDERBOX The merger of the two firms in 1998 created a behemoth of 140,000 employees that audits nearly 3,000 public companies in the U.S. The potential for conflicts of interest was enormous

Even though Disney was a client, it never occurred to him that this gift from the children's grandparents was a breach of auditor independence. In another instance, partners who had "sweep" accounts at Charles Schwab & Co. found that their idle cash had been moved into money-market funds audited by the firm.

PWC's Sicchitano explains what happened by drawing a picture of a firm facing an ever-more-complicated work environment: "There have been tremendous changes in society with working spouses...a tremendous explosion of direct investment. At the same time of all these external changes, the firms were changing a lot. We have spent all our money on client things. We had not spent on internal things. All of a sudden, we're a big global firm, and we don't have the infrastructure."

Still, nearly half of the violations occurred because PricewaterhouseCoopers employees or their spouses held shares in companies audited by PWC. In most cases, employees were not actively working on those companies' financial statements. Later, at the SEC's behest, PWC built a $15 million state-of-the-art computer system that compares senior employees' portfolios with lists of the firm's clients to spot infractions. On Feb. 1, the industry's trade group, the American Institute of Certified Public Accountants, said that it will require other Big Five accounting

firms to invest in similar systems.

For PWC, fallout from the reported violations continues. It faces a civil-racketeering lawsuit filed in the U. S. District Court in New Jersey. And PWC had to resign as auditor from four companies, including Pediatrix Medical Group Inc., a Fort Lauderdale manager of physicians' practices, as well as inform 52 more clients that PWC audit partners, tax experts, and other professionals were not fully independent of them. PWC insists none of the violations harmed clients' financial statements or filings.

DEEPER PROBLEM. None of PWC's problems might ever have come to light had it not been for the two "poison pen" letters, as PWC's Frank calls them, sent to Coopers & Lybrand and the SEC in late 1997, shortly after Coopers & Lybrand and Price Waterhouse announced plans that September to form the world's biggest accounting firm. The letters prompted the firms to start an internal review. Then, in February, 1998, the SEC notified them that it was investigating.

The initial allegations about Tampa struck Sicchitano, Frank, and others who knew about them as insignificant. A 35-year veteran of Price Waterhouse, Frank didn't suspect a wider problem: "We've never had a problem," he said. In their view, this was a Tampa problem, a Coopers problem, an isolated incident.

On July 1, 1998, the two firms merged, creating a company with 140,000 employees worldwide. The merger also introduced huge potential conflicts by marrying the client bases of the firms. Combined, they would audit nearly 3,000 public companies, mainly American, thus putting them off-limits as investments to partners. Employees were given a month to dispose of all investments that were prohibited—and a further three weeks to confirm that they had done so.

While PWC was sorting out its own independence issues, the SEC was turning up evidence that there were deeper problems in Tampa. Just how serious they were became evident on Nov. 5, 1998, when PWC's Schiro sent out an internal memo saying that two partners and a manager connected with the business there had been asked to resign. Schiro, a member of the Independence Standards Board, a professional rule-making body, added that the firm took such issues seriously. The next day, PWC did a check of its own. It asked its 1,200 audit partners to answer two questions: Do you own stock in a client you have audited? And do you know of any auditor who does? To the firm's relief, all of the answers came back "no."

Clearly, auditor independence was a big issue at PWC in the fall of 1998. Yet the recent allegations by semiconductor-maker Emcore Corp. of Somers, N. J., raise the question about whether all of the firm's partners took the matter seriously—particularly the rule that no partner may own shares in a client. Emcore alleges in a lawsuit filed in the U. S. District Court that Schiro and eight other PWC partners caused a costly delay in its secondary-stock offering last year because they owned 140,000 shares in the company while PWC did a key audit of 1998 financial statements. PWC moved to dismiss the suit, which Frank P. Barron, PWC's outside counsel, says is nothing more than an attempt to embarrass PWC and Schiro. The partners, he says, were all Price Waterhouse employees who bought into Emcore in the mid-'80s, and it was Coopers that had been Emcore's longtime auditor. Schiro owned 165 shares that were issued and labeled "restricted." That meant that the stock was not a liquid investment that Schiro could have easily disposed of by the July 1 deadline set for employees affected by the merger. Barron says Schiro transferred the shares, worth about $1,600, to his daughter in August, 1998, and they were sold by December of that year, to comply with independence rules.

Emcore alleges that because PWC chief Schiro and eight partners owned 140,000 shares, its stock offering was delayed

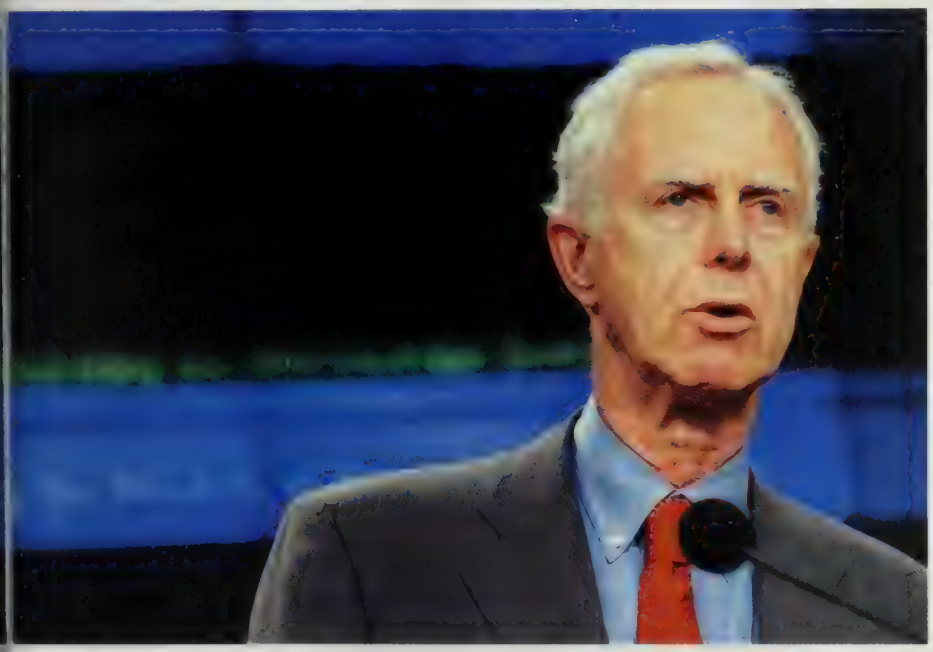
SCHIRO SAYS PWC TOOK INDEPENDENCE SERIOUSLY

An amended Emcore complaint, filed on Feb. 4, also says that partner Lennart Lindegren exercised 233 warrants to buy additional shares of Emcore in December, 1998, just before the firm signed off on the audit. Lindegren said through a spokesman that his shares were restricted, too. He said that when he asked Emcore's chief financial officer about the best way to dispose of them, he was advised to exercise the warrants, which he did, and then sold the shares. Lindegren says he donated the proceeds to a university.

In early 1999, the SEC decided that PWC's opinion on Emcore's financial statement wasn't independent, which forced Emcore to hire another aud

itte & Touche, get its 1998 state-
t reaudited, and delay its stock of-
g by three months. The suit seeks
ecified damages. The SEC won't
ment on the Emcore case. But in
ral, say officials, ownership by part-
in an audit client is a violation of
pendence rules whether shares are
icted or not.

fter the investigation in Tampa, last-



early a year, the SEC on Jan. 14,
, issued an order that became the
for the massive review that would
up the 8,000-plus independence vi-
ns. The SEC's findings were serious:
ne instance, a tax associate owned
in a company for which he pre-
d financial statements used in secu-
s filings. In 31 other cases, part-
and managers owned stock in
ing clients.

ithout admitting or denying the
ngs, PWC agreed to set aside $2.5
on for education on independence.
, it agreed to invest in the new
uter system to track every part-
and manager's investments. In the
, PWC, like all big firms, simply
d employees to review ethics rules
sign an annual statement saying
are in compliance—no one had to
se the contents of his or her port-
And though it called the Tampa vi-
ns "aberrant," PWC agreed to let an
de consultant review how closely
its U.S. employees were following
endence rules.

e review, starting in March, 1999,
d into a massive undertaking. PWC
o collect data on nearly 39,500 U.S.
oyees, back to June, 1997. With law
Lankler Siffert supervising the re-
, PWC began by e-mailing employ-
sking them to list any violations of
h they were aware over the peri-
od—and warned that if they failed to do so, they could be charged with making a false statement. Despite the warnings, a random sample of 200 of the firm's 2,700 partners revealed that 77.5% of them failed to report at least one violation that they had committed. That could in part be explained by the complexity of the rules. Even Frank and Sicchitano were stunned to learn that they had

The SEC-ordered report concluded that some at the firm "made little or no effort to comply with" the most basic rules of auditor independence

LEVITT'S SEC HAS ORDERED PROBES OF SEVEN OTHER BIG FIRMS

several violations despite the large amount of time they spent working with the SEC and sorting out the firm's independence problems.

Even so, Lankler Siffert found that the bulk of the violations resulted from breaking the most basic rules of all. Fully 37% of the violations were direct employee investments in clients—and an additional 11% were direct investments by their spouses. While the Price Waterhouse and Coopers merger accounted for nearly half the violations, 4,367 were not merger-related. The lawyers' report notes that most often, people simply forgot to check the firm's lists of prohibited investments or didn't figure out how to do a complete check. Yet the report also reaches the damning conclusion that others at the firm "appear to have made little or no effort to comply with the rules."

Clearly, PWC's partners are exasperated by those rules. While the firm insists that it will follow them, Frank may have voiced the firm's truest view when he said in an interview: "We're not here to tell you the rules are wrong, but they are." The SEC is showing a new willingness to update some of the more onerous restrictions, particularly those on mutual-fund ownership and family conflicts, which have forced many partners to leave PWC when their spouses wound up working in a significant position at a client company. And partners' parents, children, and other relatives have been forced to give up investments.

So how big a threat are lapses in auditor independence to the integrity of companies and markets? For all the weight the SEC has placed on the issue, none of the recent spectacular financial blowups at such companies as Cendant, Sunbeam, or Rite Aid can be traced to an auditor with a financial interest in the company. In PWC's case, it insists that the violations didn't compromise their clients' financial statements. Still, a number of companies were subjected to costly inconveniences because they were forced to hire new auditors.

Furthermore, many accounting professionals and industry watchdogs are bothered by what they see as PricewaterhouseCoopers' stunning complacency about the rules. "There's no excuse for what happened," says a CPA who oversaw independence policies at another Big Five firm. Some observers even liken what happened to jury nullification—a conscious rejection of the system and its rules.

Certainly, PWC's travails in coping with professional ethics contain a number of ironies. It is hard to believe that PricewaterhouseCoopers—which specializes in selling sophisticated technology and computer-systems advice—would have turned up violations if it had audited its own system for monitoring independence. And it is hard to believe that a firm littered with specialists who routinely steer clients through arcane tax laws somehow found the independence rules too hard to follow. Soon, it will be possible to see whether PWC is an isolated case or emblematic of problems plaguing the entire profession.

By Pamela L. Moore in New York

THE INTERNET

IS THE BOND MARKET READY FOR DAY TRADERS?

Volatile U.S. Treasuries provide an opening

Day-trading frenzy may soon be unleashed in the market for U.S. Treasury bonds. Web sites are offering lightning-fast access and timely information—once available only to large institutions—to smaller-stakes investors. At the same time, the volatility of the bond market is heating up, creating the perfect environment for rapid-fire trading.

Whether day trading in the old-school Treasury market will catch on with the intensity of equities is not yet clear. Online bond brokers have dubbed it the wave of the future, while trading veterans say the appeal will be limited.

"We've been pushing the idea of day-trading bonds, and people are really starting to buy into it," says Frederick T. Varacchi, who is president of eSpeed Inc., the largest online fixed-income marketplace for banks and brokers. eSpeed is a spin-off of Cantor Fitzgerald, which clears the majority of U.S. treasuries.

Bonds are no longer the stodgy investments they once were. "What most people don't know is that the 30-year Treasury bond has the same volatility" as an Internet stock, Varacchi says—but with less collateral requirement to trade on margin. An investor in a 30-year Treasury bond, for example, need put down only $10,000 to trade $100,000 worth of bonds, vs. $50,000 to trade a comparable amount of stock.

BIG GAINS. And the bond market can rival equity trading for profitability, especially if investors purchase treasury strips, which sell for deep discounts since they only pay back the principal at maturity. On Feb. 15, 30-year Treasury strips were selling for 17.065 cents on the dollar. By trading on margin, an investor could buy $1 million of these bonds for $17,065. If he timed it right, the 40-basis point swing that day would have netted the trader nearly $2,000.

In recent months, brokerage houses have tightened up their margin requirements for individuals who buy Internet stocks, making bonds even more attractive to speculative investors.

Web sites such as Tradebonds.com, an online broker, offer retail brokers and big-ticket investors timely quotes on Treasuries. Previously, small investors had to call around to the big bond houses for quotes, and often they were no longer current. At Tradebonds, the minimum account is $25,000, and the firm charges a flat $50 fee for each Treasury trade, regardless of the size.

Tradebonds' clientele differs from typical equity day traders, says preside and founder Ed Prado. "There is a r separation between a day trader E*Trade Group Inc. or Ameritrade, a someone that does a lot of bond trad It's a much more seasoned investor."

Corporate bonds, especially at t riskier ends of the cre spectrum, are also pop lar short-term plays, sa Prado, although they not traded as frequen as Treasuries. "Ther sufficient volatility," sa Prado, for investors buy into an issue and s it off the next day.

Big market playe are skeptical that ret clients will rush in day-trade bonds, but f they may be left behi "I would never say th is no market for it," s John P. Ladensack, sen vice-president for fix income at Char Schwab & Co. The fi is adding bond inve ment information to Web site that will all clients to trade 10- a 30-year bonds online. I proved technology "providing the opportu ty" to day-trade bon Ladensack says, but questions whether the enough demand.

Some fixed-income veter are downright opposed to idea. "If we see day-trad activity, we'll ask you to t your business elsewhere," s Michael Morgan, president of Bo Agent.com, a Coeur d'Alene (Idaho) line bond brokerage. Regulators t seriously the "know your customer" r and could hold his firm responsible any disasters, Morgan explains. you're Joe Investor, it's too difficult us to discern if you're sophistica enough," he says.

Most equity day traders simply w get the urge to day-trade bonds, s Ben Cohen, managing director at First Boston. "There's not the same stant gratification as there is with equity markets," because of less vol ity, he says.

Perhaps. But one thing naysay should remember: Five years ago, m market watchers would have bet a b dle of bonds that equity day trad would never catch on.

By Heather Timmons in New Y

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COMMENTARY

By Gary Weiss

HOW REAL IS THIS *BOILER ROOM*?

For a long time I've been waiting for Hollywood to discover the underside of Wall Street. Such a movie, I felt, would have to be set in the mid-1990s, for that was the heyday of "chop houses"—the slimy brokerages that preyed on thousands of investors. And it would be, of course, a farce. While investors were ripped off for billions of dollars a year, the regulators were laughingly ineffective. All they ever did was file lawsuits that were the equivalent of flinging spit balls at an F-15. A good title for such a flick would be "*Consent Decree*"—after the pathetic legal weapon the regulators wielded in those days.

Well, a movie about chop houses has just been released, and a farce it is not. *Boiler Room,* which hits the multiplexes this weekend, is an intriguing potboiler that does a great job of evoking that era. I agree with Bradley Skolnik, the Indiana securities commissioner, who has praised *Boiler Room* as a cautionary tale that can educate investors. But the public may also come away from *Boiler Room* with the silly idea that if they do get ripped off, the wrongdoers will be swiftly detected and thrown in jail.

One reason for this is the formulaic plot, which is a very open homage to the 1987 movie *Wall Street,* with all that entails—including an omnipotent regulator emerging at the end like the cavalry to mete out justice and tie up loose ends. Instead of the flamboyant and magnetic Gordon Gekko, there is the flamboyant and magnetic Jim Young (Ben Affleck), chief recruiter at the fictional "J.T. Marlin." Instead of the naive newcomer Bud, there is the naive newcomer Seth, played by Giovanni Ribisi. Seth is a college dropout in Queens who runs—how's this for a metaphor?—a casino in his basement.

Ribisi, Affleck, and the other performers certainly have done a creditable job of researching their roles. Vin Diesel, convincing as a sympathetic but amoral senior broker, would be a valued addition to any of the surviving chop houses. Ditto for Nicky Katt, who plays Seth's cretinous supervisor and bears an uncanny resemblance to a well-known short-seller. The dialogue has a nice insidey feel, maybe too insidey for some people. For example, Seth is warned to not "pitch the bitch"—sell to women—because "they're a constant pain" in a certain part of the anatomy.

TRUST ME
Vin Diesel, convincing as an amoral broker, would be welcome in any chop house

But *Boiler Room* starts to lose its credibility in the first five minutes, when the head of J.T. Marlin tells his brokers that "Bear Stearns can make all the calls they want" and it doesn't matter. Bear Stearns blowing the whistle on a chop house? In fact, the firm has been widely criticized for being far too cozy with numerous chop houses whose trades it executed. (Bear has vigorously defended its actions.) The film's writer-director, Ben Younger, says he mentioned Bear Stearns because it is a reputable house and he was not aware of the controversy.

Boiler Room drifts further from reality toward the end, when it dawns on Seth that it may not be totally kosher that he is getting a $3 commission, or "rip," for selling a $4 stock. How does that happen? No one will tell him. Then he finds out the reason—the companies don't exist. Then he finds prospectuses that show, lo and behold, that some people from Marlin were profiteering from the financing. He offers this "revelation" to the FBI, which apparently is not very good at reading prospectuses or finding out if companies exist.

TOO LATE. In fact, a brokerage dumb enough to sell stocks in totally bogus companies would have been swiftly padlocked, even in the mid-1990s. The scams were much more sophisticated than that, involving the illegal sale of cheap stock that stock promoters obtained for pennies from offshore accounts. The massive "rips" were widely known on the Street. The regulators' reaction: To do far too little, far too late.

It's a different picture today. Nowadays the National Association of Securities Dealers and the Securities & Exchange Commission are working closely with the FBI. They have been putting stock scamsters from the chop-house era behind bars. And that's great. But the sad fact is that regulators and law enforcement are making up for lost time—cleaning up today after the mess they caused years ago, when they failed to act swiftly and effectively against crooked brokers. For the thousands of people who got ripped off, that wasn't a farce or a potboiler. It was one hell of a tragedy.

Senior Writer Weiss has written numerous stories about stock fraud.

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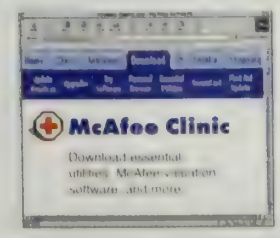

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STRATEGIES

NOW, COKE IS NO LONGER 'IT'

New CEO Daft promises a fundamental shift of focus as consumers flock to bottled water, juice, and tea

Jill Friedman, a 21-year-old college student in Atlanta, says she used to sip Diet Cokes all day long but now prefers bottled water. "As I've gotten older, I've realized that drinking five Diet Cokes a day isn't good for you," she says. Walking away from caffeine and aspartame may have been a smart choice for Friedman, but it's bad news for Coca-Cola Co.

Coke's problem is the countless number of people out there who, like Friedman, have cut way back on their soda consumption. For years, consumers have been moving in droves toward juice, bottled water, tea, and other noncarbonated beverages. Now, after decades of focusing almost exclusively on selling the world a Coke, the company has a new chief executive, Douglas N. Daft, who is gearing up to take on the non-soda market in a big way.

Coke has a lot of catching up to do. Competitors such as The Perrier Group and Quaker Oats Co., maker of Gatorade, have already made big strides in noncarbonated drinks, weakening Coke's soda sales. After nearly two decades of 7% annual gains in unit volume sales, Coke's global volume grew just 1% last year, while its operating profits plunged 20%, to $3.98 billion. Says Tom Pirko, president of New York consultant Bevmark: "If Coke wants to succeed, [it has] now got to embrace other beverages."

Given Coke's long tradition of focusing most of its marketing clout on its cola brands, that's a tall order. Over the years, Coke has tended to treat its noncarbonated offerings as second-class beverag giving them far less aggressive mark ing than the flagship product. Inde one Coke insider acknowledges that noncarbonated categories, the compa has been content to produce what terms "me-too" or "second-in-the-m ket" products that have produced sm but-easy profits. "I don't think we gone at [alternative categories] with heart and soul," says the executive.

BRIBERY. Making matters worse been Coke's long-term strategy of s sidizing its noncarbonated beverages keep competitors off store shelves. return for cash payments that run i thousands of dollars per store, m stores agree to hand over shelf space Coca-Cola products, including less p ular drinks, such as juice-flavo Fruitopia. Invariably, the practice left little room on store shelves for vals such as New Age SoBe Veryfine juices.

But that strategy may soon wear

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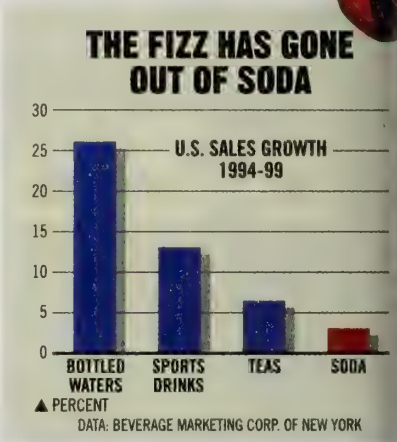
its welcome. Some retailers have begun to revolt, scaling back on Coke subsidies in favor of stocking more popular brands. Now, on the shelves of many 7-Eleven Stores, Coke's Nestea, for instance, has had to make more room not just for the better-selling Pepsi brand Lipton but also for Snapple and Ari-

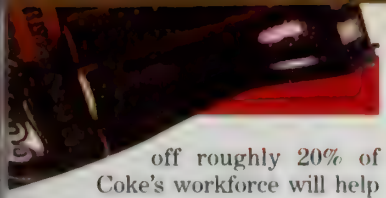


zona Iced Tea. Other Coke products, cluding its newly launched Dasani b tled water and its Powerade spo drink, are getting squeezed by m popular brands, such as Poland Spri water and Gatorade. Says Jim Jacks beverage manager for 7-Eleven: stores where they're competing o level playing field, consumers usu choose competitors' products."

That's going to change if Daft anything to say about it. Departing f years of Coke-centric tradition, D says he's ready to give bever drinkers the variety of products t crave. His goal is to remake Coke "a leader of the beverage sector, as posed to a soft-drink company."

Daft and his team agree with lysts that to get back to those halc days of 7% annual growth in volu and 15%-or-better annual increase profits, Coke will have to generate much as 30% of its future growth f noncarbonated categories. "For u achieve the growth rate that people expecting, we have to become more versified," says Steve Jones, Coke's chief marketing officer. "We have move beyond Coke and the carbs."

To that end, Daft, Jones, and o top Coca-Cola executives are push hard to shake up the company's cult In the less than three months since has been in the top job, he has shu his management team to promote e utives with a track record in noncar ated products. What's more, Daft h that his bombshell move on Jan. 26 to



off roughly 20% of Coke's workforce will help e bureaucracy and allow more new to bubble up from the field.

xt on Daft's agenda is laying out guidelines for new products, pack-, and marketing. Then he intends t his local managers loose to de- products tailored to local tastes. Coca-Cola already sells some 300 se beverage products around the . Daft envisions a day when Coke ffer 2,000 or more, many of which e new juices, teas, and hybrid cts, such as carbonated tea. "We e trend-setting," he vows.

at would surely mark a dramatic from Coke's predicament today. Daft has a fighting chance. For rs, Coke's vast global network of endent bottlers, valued by some sts at $100 billion, gives it a reach o other beverage company can .. Even so, analysts believe that bottlers, many of which are finan- stretched from costly expansions past two decades, may be reluc- o plunge into the nonsoda mar- enerating the volume needed "to le profits...is going to be a chal- " says Scott Wilkins, an analyst utsche Banc Alex. Brown Inc.

Will the Coke name mean anything to yers of mango juice or rice milk?

n if Coke persuades bottlers to its new drinks, some question er the company will enjoy the brand equity in, say, mango juice in America or rice-based drinks ia as it does with Coke. "Without oke name, they're just another on the shelf," says Brown Broth- arriman & Co. analyst Roy D.

l, beverage experts say Daft is right track. With consumers vot- nvincingly for new noncarbonated ges, it would be suicide to cling a alone, they say. Just ask Jill nan and the many others like her. e not drinking as much Diet but they are drinking something. whether it's juice, tea, or water, Daft is determined that they'll tart buying it from Coca-Cola Co.

Dean Foust, with Deborah in Atlanta

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 # LESSON 11 How to Read Stock Charts Like a Pro

Reading stock charts is an acquired skill, but mastering it can mean the difference between picking a winner or a loser. It's just one of the unique but proven lessons found in William J. O'Neil's latest book, *24 Essential Lessons for Investment Success.*

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SPECIAL INTERESTS

ISSUE ADS: FREE SPEECH OR END RUN?

A flood of TV and radio spots paid for by unlimited, secret donations is influencing the election process

As media focus shifts to Michigan for the Feb. 22 Republican primary, the Sierra Club is already there. On Feb. 16, it began bombarding parts of the state with TV ads decrying Texas' environmental record. The Sierra Club spots don't urge voters to defeat George W. Bush at the polls—but they do show vivid images of air and water pollution in Texas, which happens to have a governor named Bush. Even Bush's campaign manager conceded that a similar ad campaign weakened support for George W. in New Hampshire.

The Republican Leadership Council (RLC), a group of moderate GOPers, may have contributed to the demise of Steve Forbes's candidacy with a string of ads. The AFL-CIO has amassed a $20 million ad budget. And groups ranging from the National Right to Life Committee to the business-backed Americans for Tax Reform are running tough ad campaigns this election season.

Welcome to the war of the issue ads. Such radio and TV messages, paid for by political parties or independent groups, are meant to explain a policy such as campaign-finance reform or abortion, but are supposed to be produced independently of a campaign. They can criticize or admire candidates, but they aren't supposed to advocate election or defeat. In 1998, some $260 million was spent on issue ads, up 73% from the $150 million spent in '96, according to the Annenberg Public Policy Center at the University of Pennsylvania. This year, "it's inconceivable that there will be less spent than in '98," says Larry Markinson, executive director of the nonpartisan Center for Responsive Politics.

ELECTION 2000 ISSUE ADS

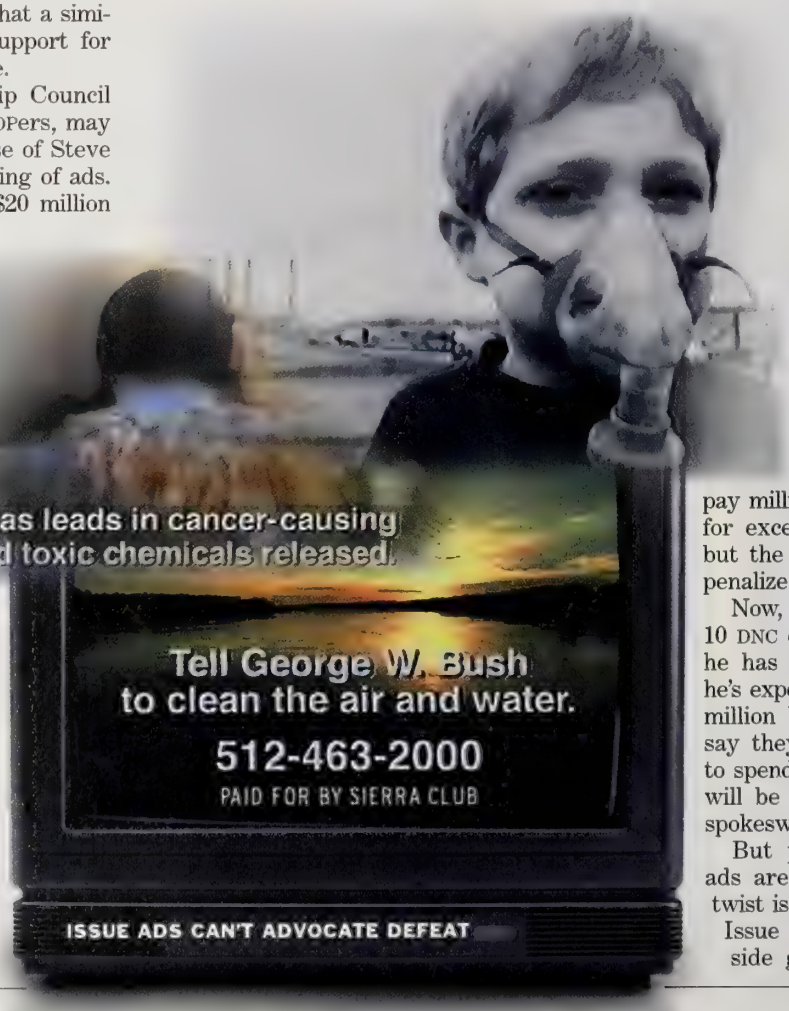
Not only is more money being spent on issue ads but it's pouring into the Presidential contest earlier than ever. And as more groups take advantage of a new election-law loophole, they can raise money without revealing their donors. "The most dangerous money in American politics is the unlimited, secret contribution," says Fred Wertheimer of pro-form group Democracy 21. "That's door being opened here."

Issue ads have been around for ye but they only recently took In the early '90s, unions ideological groups occasion promoted their philosop around election time, while ers were paying attention 1995, the Federal Elect Commission ruled that political par could run similar messages and pay them with soft money—unrestricted tributions from unions, corporations, the wealthy.

President Clinton leaped at the portunity in his reelection campa He accepted taxp er funds on the co tion that he wo not spend any o money, and yet he a Democratic Nat al Committee ef to raise $44 mil for issue ads. campaign of GOP n inee Bob Dole raised funds for i ads, though on a l er scale. After au ing both campai the FEC staff rec mended that each pay millions in taxpayer mo for exceeding spending lim but the commission refuse penalize either campaign.

Now, Clinton is at it again 10 DNC events so far this y he has raised $4 million, he's expected to help pull in million by April. DNC offi say they haven't decided to spend the money. "Issue will be just one option," spokeswoman Jenny Backu

But party-sponsored i ads are old hat now. Toc twist is far more controve Issue ads sponsored by side groups using a po



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"With no FEC and minimal IRS oversight, we're flying under the radar" — MARK L. MILLER, Executive Director of the Republican Leadership Counci

new loophole uncovered in Section 527 of the Tax Code. Such groups, called 527 committees, are political nonprofit organizations that pay no taxes and are not required to disclose donors' names either to the FEC or the Internal Revenue Service. Indiana lawyer James R. Bopp Jr., who has set up numerous 527s for conservative groups, says it was the IRS in 1995 that encouraged such outfits as the Christian Coalition to convert from 501(c)(3) to 527 status because it didn't want charities involved in politics. Moreover, 527s can raise unlimited soft money from anyone, anywhere—even foreign companies and governments.

'BIG IDEAS.' For about $500 worth of lawyer's fees and documentation, almost anyone can form a Section 527 committee. FEC spokesman Ian Stirton says the agency has no idea how many 527s exist, since there are no registration or reporting requirements. Neither does the IRS. But they're springing up everywhere. Former House Speaker Newt Gingrich just converted his Friends of Newt Gingrich political action committee into a 527 called the Committee for New American Leadership. "We're not going to be involved in any elections," says spokesman Mike Shields. "We're just going to talk big ideas."

But big ideas aren't always the point. The moderate RLC operates a 527 committee that ran anti-Forbes ads and spots lampooning Al Gore's claim that he helped invent the Internet. "With no FEC and minimal IRS oversight, we're flying under the radar," boasts RLC Executive Director Mark L. Miller.

Political parties, which are highly regulated by the FEC, don't have it so easy. Not only must they report their donors, but parties must also use a blend of soft and hard money to pay for their issue ads, unlike unaffiliated groups. For every $100 in issue ads, $65 can be soft money, while $35 must be hard money. Both major parties claim they are handicapped by the rule and are suing the FEC to overturn it. And watchdog groups are alarmed by what they believe is a move by House Majority Whip Tom DeLay (R-Tex.) to skirt the rule. Current and former DeLay advisors have set up 527 committees to raise large sums for issue ads and get-out-the-vote efforts for the House's most vulnerable GOP members.

While outright coordination remains prohibited, groups can legally tell campaigns about their advertising plans. Forbes and others say the RLC crosses even that line. They say the RLC works so closely with Bush that it's almost a shadow campaign. Indeed, 70% of the RLC's board are Bush contributors. Miller denies the charge, adding that he could coordinate with Bush under federal rules, "but we decided to take a conservative approach and not talk at all." Forbes has filed an FEC complaint anyway. The National Smokers Alliance and Americans for Tax Reform, which have been running ads in South Carolina critical of positions taken by Senator John McCain, also deny coordinating with the Bush campaign.

Some experts believe the issue ad explosion is just beginning. Once the primaries are over, trade groups representing financial companies worried about privacy restrictions, Internet companies concerned about sales taxes, and medical groups active in managed-care issues are expected to weigh in. That is sure to raise more warning flags. "I think w see more efforts that walk right up the razor's edge of what you can can't do," says Sierra Club Political rector Daniel J. Weiss. Laments Dor J. Simon, general counsel of the non tisan Common Cause: "These aren't is ads, they're campaign ads. This is a to cheat on the campaign-finance law

Still, constitutional scholars are divi as to whether Congress can restrict is ads. Says Da O'Steen, execu director of the tional Right to Committee: " forefathers di fight to have right to dis crops and weather. It was for the r to discuss political ideas." ator Joseph I. Lieberman Conn.) agrees yet is conce about the rise in donor s cy. Instead of trying to ads outright, as McCain poses, Lieberman may legislation that would hit in their pocketbooks. T tain tax-exempt status, would have to disclose w their money comes from and how spent. While that avoids the free s issue, it still is expected to be hi controversial. So for now, the line tween fostering a healthy debate mounting a stealthy partisan attack remain easy to cross.

By Paula Dwyer, with Lorr Woellert, in Washington and A Bernstein in New Orleans

WHO'S RUNNING ISSUE ADS?

Some four dozen groups are spending millions to sponsor ads on issues ranging from tobacco to clean air. Some examples:

NATIONAL RIGHT TO LIFE COMMITTEE
Ran spots in New Hampshire mocking McCain's proposal to curtail issue ads.

REPUBLICAN LEADERSHIP COUNCIL
Spent $1 million so far on ads attacking Al Gore and Steve Forbes.

SIERRA CLUB
Radio and TV ads in New Hampshire criticized George W. Bush's clean-air record. Similar spots are starting to air in Michigan. Total amount spent: about $50,000.

AMERICANS FOR TAX REFORM
Anti-tax group ran 82 TV spots and spent about $100,000 in New Hamp shire attacking McCain's campaign- nance-reform stance.

AFL-CIO
Big Labor plans to spend about $20 million to influence 2000 races. Firs up: ads that urge lawmakers not to normalize trade relations with China

DATA•BUSINESS WEEK

IF "STRAIGHT TALK" IS THE ISSUE,

JOHN McCAIN IS NOT THE ANSWER.

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IN SOUTH CAROLINA, *this ad accused McCain of raising taxes*

COMMENTARY

By Lorraine Woellert

A NEW SAFETY NET FOR THE NEW ECONOMY

With the nation enjoying its lowest jobless rate in 30 years, state unemployment-insurance st funds are bulging with $48 bil- n in unused funds. Last May, Presi- nt Clinton said he wanted to use surplus to pay workers who want e off to care for a new baby. He ewed the call in his Feb. 12 radio dress, even as the Labor Dept. was wing up rules that would let tes use their unemployment funds finance paid parental leave.

But before dishing out the surplus- as an election-year favor to voters, Administration should reassess unemployment insurance system a whole. Simply put, the 65-year- system hasn't kept pace with a nging workforce. The share of job- s workers collecting benefits has unk from more than 50% in the 0s to 36% today (charts). Many of uncovered are part-timers, temps, l other contingent workers whose ks have swelled with the New nomy. States have excluded other rkers by tightening eligibility rules. The jobless system should be updated to accommodate the changing workforce. Paying for parental leave might make sense in that context. After all, unemployment insurance was designed for an era when fewer mothers held jobs. But first, policymakers should examine the costs to see what we can afford—in good times and bad. "The question is, who should we bring into the system first"—workers who lose their jobs, or parents of new children? asks Wendell Primus, a policy expert at the Center on Budget & Policy Priorities, a Washington think tank.

The unemployment system was created when the typical worker was male and worked full-time. But today, contingent workers are roughly a third of the workforce—some 43 million—up from 27% in 1980, according to Working Partnerships USA, a temp worker group in San Jose, Calif. Most are ineligible for jobless benefits.

Bringing these workers into the unemployment-insurance system probably wouldn't cost that much. With jobless rates low, states pay out $19 billion a year in jobless benefits but collect $30 billion from the unemployment-insurance payroll tax on employers. It would likely cost $9 billion a year more to restore the share of jobless workers covered by unemployment to 50%, estimates Primus. So most states could afford to modernize their systems.

RISKY POLITICS. The problem would come in the event of slower growth —and higher unemployment. In 1992, when the jobless rate hit 7.5%, states as a whole dished out $38 billion in jobless benefits, and some were forced to borrow from the federal government. Today's fat surplus and extra inflows might allow states to get through another slump without going into the red again, even if they were spending the extra $9 billion on higher coverage. But paid parental leave, which experts say could cost as much as another $9 billion or so a year, could break the system.

That means the U.S. may not be able to cover more workers and pay new parents to take a leave. The former should be the priority. If the Administration is serious about the latter, it could take the politically risky step of asking employers to foot the bill. Since 1992, 20 states have cut unemployment-insurance taxes, which have dropped from 2.51% of wages to 1.92% today. Restoring the old rate would add some $5 billion a year.

Paid parental leave would be a boon to low-income workers and single parents. But part-timers and others also need help to navigate a fast-changing job market in the New Economy. Both goals are good policy—but not when they're pitted against each other.

Woellert reports on Congress.

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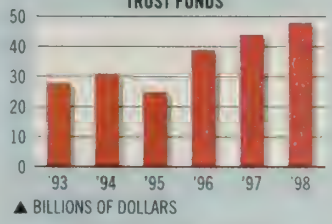
TOTAL OF STATE UNEMPLOYMENT TRUST FUNDS



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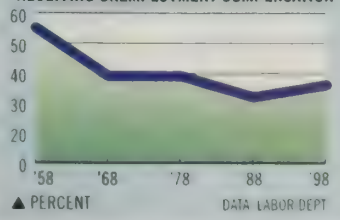

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PROTECTING YOUR PC FROM WEB BANDITS

BusinessWeek Lifestyle

Back Off, Hacker

Easy-to-use software can keep online intruders out of your PC

BY LARRY ARMSTRONG

So it wasn't your computer that hackers commandeered earlier this month to bring the Internet's largest and most well-known sites to their knees. You're vigilant with your e-mail, discarding messages from people you don't know and never downloading executable programs, those ending with the .exe extension. At work, your company runs antivirus software and has a firewall to protect against intruders.

All good habits. Still, chances are your computer could easily be hijacked into the same kind of mischief that was directed at Yahoo!, eBay, and Buy.com. Think about the e-mail your significant other sent you, the one with the fluttering Valentine hearts. That—and hundreds of other seemingly innocuous e-missives—could have pl ed a so-called Trojan horse in your machine. W out crashing your hard disk or writing over y files like a virus would, this tiny program m have stealthily opened a back door for a hacke come in and take over your computer.

Computers

Don't panic. You can th cyber crime with your personal firewall. Because versions that have hit the m ket in recent months are much easier to you no longer have to be a geek steeped in nitty-gritty of network engineering to safegu your PC. Indeed, the best home firewalls, if figured correctly, can come close to provi the same level of security as corporate firew

I installed on my computer these updated walls—including Norton Internet Security ($59.95) from Symantec and ConSeal Private D

top ($49.95) from Canada's Signal 9 Solutions, which McAfee.com bought last month. I also tried out BlackICE Defender ($39.95) from Network ICE, and an appealing newcomer, Zone Labs' ZoneAlarm, which is free for personal use (table).

I also logged on to some Web sites that probed my system for the same holes that hackers seek. Shields UP!, at www.grc.com, steps through 10 of the ports that a PC uses to connect to the Internet, including those that identify it to other computers, let it share files and printers, and send and receive e-mail. Of your PC's 65,000 ports, these are among the most abused by hackers. Another site, secureme.net, runs a more rigorous test that includes a pint-size version of this month's infamous Denial of Service attack, which caused crash on major e-commerce sites.

Firewalls can make your computer, or at least part of it, invisible to hackers. Without them, even if the doors are closed, hackers can still see doors and know they can check later in the day that one has been opened. This is especially the case if you're using a cable or digital subscriber line (DSL) modem, where you're always connected to the Net and identified by a fixed address that never changes. With a dial-up connection, you're only vulnerable when you're online, and each time you dial in, your Internet provider assigns you a new network address.

The programs I tried all worked as advertised with Shields UP! and Secure-Me reporting that my computer was locked up as tight as a drum. Each has its peculiarities and different ways of screening for intruders, but they all offer a range of security settings so you can find a balance between the security you need and the activities of the Net you want to enjoy. Some activities, such as games and chats, are harder than others: Their programs require you to open your network address and set direct connections that see into your computer rather than just send and receive data via third-party sites. If games aren't important to you, you can instead play, BlackICE software with the "nervous" or "paranoid" setting. If you want to visit game sites, you can lower the setting to "cautious."

ConSeal Private Desktop offered the broadest range of control, adjustable for the neophyte looking for a little peace of mind or for the expert who wants to configure it specifically for each Web browser, mail reader, and chat program in use. I would hold off on this one, however. Its interface is intimidating for novices, with mystifying detail about ports and Net protocols. McAfee.com will likely overhaul it when it rereleases it in March as part of McAfee Clinic, a $29.95-a-year subscription service.

At the other end of the scale is the easy-to-use ZoneAlarm, with help boxes that pop up to explain how to use the feature your cursor is on. Like the ConSeal product, it makes each program—a Web browser, chat software, or a multimedia player—ask for your permission before it connects to the Net. So even if your system is infected with a virus, you have a chance to stop it from broadcasting any data stored in your computer. For cable and DSL users, it will shut down all communications with the outside world after a predetermined period of inactivity, and there's a panic button that will do the same if you see any suspicious activity.

Norton Internet Security may be the one for you if you don't already have an antivirus program. Besides virus scans and a firewall, it offers a range of other security and privacy features, such as letting you set parental controls for youngsters, remove "cookie" programs that advertisers use to track you, and even block the pesky banner ads that clutter most Web pages. BlackICE Defender is for the vigilantes among us. It traces any attacks back to their source, keeping a log that can be e-mailed to the offender's employer or Internet service provider.

Whatever the disruption this month's attacks caused for their e-commerce victims, they certainly raised awareness of just how little security is built in to the Internet. But with the advent of simple, easy-to-use firewalls, there's little excuse not to start fighting hackers at the grassroots level. Best of all, if you want to, you can do so for free. □

Firewalls make your computer invisible to hackers. Some programs even block banner ads and ditch the "cookies" marketers use to track your Web travels

Security Systems for PCs

PRODUCT/ COMPANY	PRICE	ANNUAL UPDATES	COMMENTS
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CONSEAL PRIVATE DESKTOP *Signal 9 Solutions* www.signal9.com	$49.95		Acquired by McAfee.com. Will become part of McAfee Clinic, a $29.95-a-year subscription service, on Mar. 15.
NORTON INTERNET SECURITY 2000 *Symantec* www.symantec.com	$59.95	$19.95	Security-and-privacy package that includes a firewall, privacy filters, banner-ad blocking, and parental controls.
ZONEALARM *Zone Labs* www.zonelabs.com	Free	Free	Easy-to-use product that lets users specify applications with Net access. Includes emergency lockouts and downtime.

TAX TIPS, INFLATION-ADJUSTED BOND INVESTING

BusinessWeek Investor

The Tax Man Still Biteth

The audit rate is down—but some deductions invite scrutiny

BY SUSAN SCHERREIK

Under pressure from Congress, the Internal Revenue Service is trying to shake its tough-guy image. Indeed, look no further than today's tax audit rate. The average person today has a less than 0.5% chance of an in-person audit. Five years ago, the odds of being audited were 0.7%, and in 1981, they were 1.6%. Budget and staff cuts are partly behind the fall-off. But audit rates are also down because the IRS has turned its attention to beefing up customer service.

Don't be lulled into complacency, though. The IRS recently asked Congress for money to conduct more audits, starting in 2001, and indications are it will get more funding for this purpose. More important for now, the IRS continues to target certain categories of taxpayers for audits. If you take a deduction for a home office, own a cash-based business such as a restaurant, or even pull down a six-figure salary in Los Angeles, your odds of being audited rise well ab the norm. "There is no assurance that the kin gentler IRS will be a pussycat with you," wa David Rhine, national director of family we planning at BDO Seidman in New York.

Taxes

What triggers a tax audit? The most com way the IRS pulls returns for a closer look is using a computer program called DIF, wh stands for discriminate function. DIF scans ev tax return and assigns it a score indicating likelihood of questionable items. The IRS do disclose what DIF might flag, tax experts figure it searches seemingly out-of-whack relat ships, such as itemized deduct that are large compared with earnings.

There's evidence the DIF criteria, which w last updated in 1992 with data culled from returns, are not as relevant as they once w Indeed, the IRS used DIF to select 29% of ret audited in 1998, down from 46% in 1992.

What also catches the IRS' eye are deduct

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most people don't qualify for—such as casualty losses or employee business expenses. Say a hurricane leaves your finished basement a soggy mess. Insurance should cover the damage, but if it doesn't, the IRS only lets you deduct unreimbursed casualty losses that exceed 10% of adjusted gross income, plus $100. If you claim this deduction, BDO Seidman's Rhine suggests trying to head off an audit by attaching supporting documents to your return such as newspaper clips on hurricane damage in your area.

SMALL-BIZ TARGET. Small-business owners remain targets for audits as well. The IRS zeros in on entrepreneurs because of concerns about lumping personal expenses with business deductions. Home-office deductions are scrutinized for the same reason. In 1998, 2.85% of returns with a Schedule C (the IRS tax form used by many small-business owners) showing income of $100,000 or more were audited. That audit rate is six times higher than the national average. The IRS especially reviews cash-based businesses such as restaurants and dry cleaners, to unearth unreported income. The agency has developed detailed manuals for 57 businesses to help its auditors. Many of these industry-specific *Audit Techniques Guides* are available for free on the Net at www.irs.gov and can help small-business owners and their accountants determine what is likely to catch the IRS' attention.

For instance, in the guide on bed and breakfasts, the IRS lists several sources of cash come, such as referral fees from local business that the B&B recommends to its guests. B owners "should substantiate and verify that th either have or don't have these sources of come," says Mark Ely, national partner in cha of tax controversies at KPMG in Washington. T guides, he adds, can h business owners track inco they might have overlook

Taking a deduction for nating a car to charity is other red flag. Marcus Owe director of the IRS divis that watches charitable c tributions, says anecdotal idence suggests a grow number of people are ov stating the value of vehic given to charity. Owens s some used car or scrap-me dealers also buy the use c charity's name to fool peo into thinking they are de ing with a charity. But " don't get a deduction for g ing your car to a for-profit organization," says. In November, Owens sent a memo to IRS' 33 districts directing them to look out this abuse.

ADDRESS ALERT. Having your return pulled an audit also depends on where you live. 1998, individuals in Los Angeles report $100,000 or more in adjusted gross income w audited at a 2.56% rate, nearly six times gre than in Houston, which boasted a 0.45% a rate, the lowest anywhere for the weal among the 33 IRS districts. Other areas w steep audit rates in 1998 were Brooklyn (1. rate) and northern California (1.61%). Me while, New Jersey (0.66%), Michigan (0.81 and Illinois (0.89%) enjoyed among the low audit rates. Why the discrepancy? "We ten do more audits where our research shows h er instances of noncompliance," says IRS spo woman Jodi Patterson.

The IRS is taking other measures to ens compliance. For instance, the agency comp income reported on returns to W2 forms f employers and 1099s from banks and broke firms. It is also installing state-of-the art d mining technology that will make it easie identify patterns of cheating and fraud. Whe is up and running in four to five years, "we be better able to look at pieces of informatio understand the entire profile of a taxpayer changes from year to year," says Paul Cosgr chief information officer at the IRS.

When you're doing your 1999 return spring, you may be tempted to avoid taking tain deductions out of fear of triggering an a Such behavior is silly if the deductions are l tax experts say, because you shouldn't ever more in taxes than you owe. Just be sur keep detailed records—whether Uncle comes calling or not.

Audit Traps

The odds of being audited are lower than ever. But audit rates rise dramatically for people who take certain itemized deductions or fall into categories that the IRS scrutinizes closely. Here are major reasons for audits.

BIG DEDUCTIONS RELATIVE TO INCOME An IRS computer program called DIF flags such out-of-whack relationships to single out returns that need further scrutiny.

DEDUCTING FOR CASUALTY LOSSES Since few people qualify for this deduction, the IRS looks carefully at returns that claim it.

YOUR CPA IS A TARGET In 1998, 6.4% of audits were triggered by suspicions about the tax preparer, up from 3.7% in 1992.

LIVING IN LOS ANGELES Audit rates vary depending on where you live. The rate for wealthy people in Los Angeles was nearly six times higher in 1998 than that for Houston.

OWNING A SMALL BUSINESS The IRS focuses on entrepreneurs because of the potential to pad business deductions with personal expenses.

The IRS zeros in on entrepreneurs because of concerns about lumping personal expenses with business deductions

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Fear of inflation is roiling markets again and making investors increasingly nervous. Higher prices are cropping up in many sectors of the economy, and the Federal Reserve is widely expected to hike short-term rates several more times this year. To take out an insurance policy against an inflationary outburst, investors should investigate the Treasury's two kinds of inflation-protection debt securities: TIPS, designed for investors, and Series I Bonds, a new kind of U.S. savings bond.

I Bonds provide a guaranteed real yield (over the inflation rate) of 3.4%. Real yields on TIPS, or Treasury Inflation-Indexed Securities, are even more alluring: 4.3% on the 10-year maturity, and 4.1% on the 30-year bonds. "They're cheap," says Jane Wyatt, principal at North Shore Advisors, a fixed-income firm in Minneapolis.

Introduced in 1997, TIPS pay a coupon, or interest rate, just like an ordinary bond. But the security's principal value is adjusted twice a year to reflect inflation, as measured by increases in the consumer price index. Take the example of a $1,000 inflation-indexed bond with a 4% real rate of return. If inflation were 1% during the first six months of the year, the principal would be increased to $1,010. And instead of receiving a semiannual interest payment of $20 (half of 4% times $1,000), the payment would be $20.20.

Real yields of 4% or more are historically fat. In the past half century, real yields on regular Treasury bonds have averaged only 2.3%. Those on U.S. corporate bonds have averaged some 3% since 1873. "The real yields [on TIPS] are higher than all the long-term analysis says they should be," says Alan Kral, vice-president at investment management firm Trevor, Stewart, Burton & Jacobsen. Adds Scott Grannis, chief economist at Western Asset Management, a Pasadena (Calif.) fixed-income firm: "You buy TIPS not because you are afraid of inflation. You buy them because the level of real yields is extremely attractive."

MARCH IN LOCKSTEP. TIPS also help diversify your holdings, which reduces investment risk and increases the odds that you'll earn a decent return over time. The trick is to put your money into assets that don't march in lockstep. The correlation between TIPS and other fixed-income securities is relatively low, says a recent Merrill Lynch study.

Although some $106 billion in TIPS are outstanding, the buyers have been chiefly institutions; TIPS haven't been a big hit with individuals. A problem: You have to pay taxes on your inflation-adjusted increase in principal each year, before you ever get any of your money at maturity. That's why these bonds work best in a tax-deferred savings account, such as an individual retirement account or a 401(k) plan.

You can buy TIPS on the open market or at auction through the popular Treasury Direct program (www.publicdebt.treas.gov; 800 943-6864). Several mutual-fund companies also offer inflation-indexed funds that invest in TIPS, including PIMCO's Real Return Bond Fund and American Century's Inflation-Adjusted Treasury Fund.

The I Bonds, introduced a year ago, are proving considerably more popular. Individuals have so far bought $700 million worth. Indeed, I Bonds account for 73% of the Treasury's online sales of savings bonds. I Bonds are different from TIPS in that the interest accrues, and you pay no taxes until you cash out.

The interest has two components: a fixed 3.4% rate, and an inflation adjustment, made twice a year and based on the consumer price index. Until the next reset on May 1, the inflation component is 3.52%. So the total interest earned is 6.98%. I Bonds keep paying interest and compounding for 30 years. If you redeem them within the first five years, though, you pay a penalty: three months of yield. But if you can sock them away for the long haul, they're a worry-free way to protect some money against inflationary erosion.

he Treasury's Inflation Bonds

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eral taxes due on interest, in- in principal	• Federal taxes deferred until redemption

TODAY'S HOT TREND IS TOMORROW'S LOSER

BY MIKE McNAMEE

Robert Markman thinks slicing up your portfolio among superthin stock classes is for the birds. Since February 1995, the president of Minneapolis-based Markman Capital has won a wide following by concentrating his clients' money on what he calls "the red, white, and blue chips"—stocks of big U. S. companies, plus an extra dash of technology.

His three funds of funds—portfolios of high-minimum mutual funds for the aggressive, moderate, or conservative investor—have posted returns 1.9 to 6.7 percentage points higher than their peers. "Where is it written that you have to have a piece of everything happening around the globe to prosper?" he says. The world belongs to large-cap U. S. stocks, Markman insists, because big American companies are so nimble and techno-savvy that they'll leave small and foreign competitors in the dust for years to come.

MARKMAN: *Favors the stocks of big U.S. companies*

HAZARDS AHEAD? Markman's big-growth-stock gospel—laid out in his new book, *Hazardous to Your Wealth* (Elton-Wolf Publishing, $17.95)—has been unbeatable since 1995. But it could be hazardous to follow into the future. Markman is joining a long line of gurus who preached that a current hot investment would forever rule the market—a prediction that has always been undone by the market's tendency to dethrone winners.

The New Economy thesis is the whip Markman uses to lash out against the academic takeover of the investment game. Since the 1970s, scholars have been designing ways to reach the "efficient frontier," the diversified mix of assets with complementary returns and offsetting risks. Their ideas have been popularized by writers, financial planners, and even Web sites like Nobelist William Sharpe's financialengines.com.

Markman insists that dicing your stock portfolio is a flawed strategy on several levels. First, two of the allocators' favorite assets—small and foreign stocks—don't outperform or offset large caps, he says. And Markman dismisses the idea that the future can be discerned by studying the past. "The theory de pends on relationships between assets that aren't projectable to the future," he says.

But any long view will show that every as class has its time in the sun (table). Since 19 the 16.02% annual return on U. S. small-cap stocks has outpaced big stocks' 13.2%, accord to Ibbotson Associates. And since 1970—as f back as good data are available—foreign sha as defined by Morgan Stanley's EAFE index h posted a 15.16% annual return.

History never repeats itself exactly. But you don't know which asset will outperform behooves you to have some of each," says John Rekenthaler, director of research at Morningstar, the mutual-fund data firm. Ar while a falling large-cap market tends to s all types of shares, diversification will still duce your risks, because large, small, and foreign stocks don't move in lockstep, says Ibbotson's Clay Singleton.

True, many money managers and investo have been "oversold by science," in Rekenthaler's words. But that science is based on common sense at least as old as Aesop: Don put all your eggs in one basket. Even Mark man divides his clients' assets into stocks, bonds, and cash. But anyone who follows hi lead and bets solely on big-cap and technolo stocks is ignoring history—and begging for trouble.

McNamee covers finance from Washin

To Diversify or Not?

Concentrating on large-cap stocks, as Robert Markman advocates, means missing out on opportunities. Here are the number of years from 1980 to 1999 when each asset class was the best and worst performer:

	YEARS ON TOP	YEARS ON THE BOTTOM
LARGE-CAP STOCKS	5	1
SMALL-CAP STOCKS	7	4
LONG-TERM TREASURIES	2	5
LONG-TERM CORP. BONDS	2	0
MEDIUM-TERM TREASURIES	1	1
TREASURY BILLS	3	9

DATA: IBBOTSON ASSOCIATES

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CLICK BACK AND PLAN YOUR RETIREMENT

BY ROBERT BARKER

The nation's 401(k) plans now total $1.5 trillion. Employees can manage their money more wisely with interactive planning services on the Net

With 401(k) plans holding $1.5 trillion, money that we amateurs must manage ourselves, America is making a huge bet on our ability to invest wisely. How good are the odds, do you think? I suspect they're better than many experts believe. Yet I'm also happy to see more and better advisory tools now being offered to our nation of accidental investors.

Among these are several services that give interactive financial planning advice via computer, showing how best to split retirement savings among your plan's investment options. But most (including one from Standard & Poor's, which like BUSINESS WEEK is a unit of the McGraw-Hill Companies) are available only on company sites.

The latest entrant, though, can be used not just through employers but by anyone on the Internet. Financial Engines took an early lead in this arena. Now Morningstar is introducing ClearFuture, with lofty ambitions. "We want to be in the behavior-modification business," Morningstar Research Director John Rekenthaler told me. "If this is going to work, it has to become more a part of people's lives."

"WHAT IF?" In other words, running your 401(k) has to become, if not exactly fun, then far from the anxiety-ridden chore it is for so many of us. Curious to see how well ClearFuture meets that goal, I've been testing the service, which you can find at www.morningstar.com. (Price: $99 a year after a free, 30-day trial. Morningstar says it'll soon offer a cut rate.) An expanded version, with education, research, and tracking modules, is being sold directly to 401(k) plans, as Financial Engines is doing, too.

What did I find? Right off, ClearFuture introduced a pair of Jetsonian cartoon characters, Jake Starlight and his tail-wagging mutt, Maggie, to guide me. It also estimated how much time I might spend—20 minutes for investors with basic portfolios. Next, ClearFuture took me through questionnaires on retirement goals, plus my current portfolio and savings plan, before crunching numbers and suggesting three strategies: smoo moderate, or bumpy investment "flights" to r tirement. I picked a moderate one and took on a "test flight" that showed me via charts a dollar figures how my balance might plunge ov three, 12, and 24 months. That gave me a char to consider how well I could stomach that mu portfolio volatility and, if I wanted, to adjust Finally, it picked the funds for me from choice had entered, described them in detail, and t me how much money to put in each.

It was all swift and mostly painless. It a seems aimed directly at Financial Engines, wh offers forecasts for free and advice for $14.9 quarter. Founded by economist and Nobel la reate William Sharpe, Financial Engines' exc lent tool comes across as decidedly more sober not geeky. It is complex. It's slow to load, and type is often maddeningly tiny. ClearFuture sprightly, saving details long footnotes. And wher gives advice, I found it ea er to follow. I especially lik its "What If?" function. let me test changes in su variables as my retirement date, a was admirably compact yet expli Instead of forecasting a percentage pr ability of reaching my retirement come goal given my savings p and investments, as nancial Engines does gave me a range of inco that I would likely have giv the same assumptions. That ma more sense to me.

GUIDE DOG: *Cartoon characters help users of ClearFuture*

Where both tools ne sharpening is in help the many people w hold most retirement sets outside a 401(k). P haps they've switched j and rolled fat sums i IRAs, or they're alrea retired. If that's you, y can get advice from eit service by simulating 401(k) portfolio. Cauti If yours is even a bit co plex, you could spe hours at it. Mornings is working on this job, but Financial Engi now does it better. It a wins at handling the many 401(k) plans w specialized accounts. If yours offers, say, a gu anteed investment contract, you can choos generic GIC to mimic its role in your portfoli

Employees using ClearFuture as part of th 401(k) won't need such workarounds. But if want to get advice by yourself via the Net, yo find Financial Engines the better choice.

For barker.online, go to www.businessw com/investor/ or AOL keyword: BW Daily.

401(k) Advice on the Web

SITE	COMMENTS
MORNINGSTAR CLEARFUTURE www.morningstar.com	Speedy, easy to understand, but adapts poorly to investors with most assets outside a 401(k) plan
FINANCIAL ENGINES www.financialengines.com	More flexibility for investors with many assets outside a 401(k), slower, sometimes seems opaque

QUESTIONS? COMMENTS? E-mail barkerportfolio@businessweek.com or fax (321) 728-1711

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Even the Sky Is No Limit

Take Our Daughters To Work® Day

April 27, 2000

A Program of the Ms. Foundation for Women

In 1993, the Ms. Foundation launched Take Our Daughters To Work® Day, a program which has opened up new worlds to millions of girls, taught them how to make their ideas, dreams and aspirations take flight. On April 27, 2000, we'll be taking off again. And you can join in the mission. Encourage your company or organization to participate in Take Our Daughters To Work® Day. Or help a girl get on board. Just call **1-800-676-77**[illegible] or explore our website, **www.ms.foundation.o**[illegible]

Left to right: Astronauts Ellen Ochoa, Eileen Collins, Yvonne Cagle and Take Our Daughters To Work® Day participants

TEAM FOR HOOVER'S

ENE G. MARCIAL

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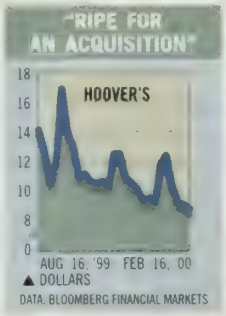
. A break-up
Dermott?

Like many other Internet companies, Hoover's (HOOV) stock skidded below its initial offering price after an early blast-off. The stock jumped from 14 to 22 on the first day of trading (July 21, 1999) but then sagged to 8¾ by Feb. 16. But to money pro David Simons, the stock's breakdown was a welcome chance: He hunts for beaten-down Net plays whose business models indicate to him that they will endure and survive initial drawbacks. An online provider of proprietary editorial content and information on companies worldwide, Hoover's also supplies information on IPOs, brokerage and credit reports, news stories, and Securities & Exchange Commission documents.



Since licensing its database to America Online in 1993, Hoover's has struck similar agreements with Bloomberg, Dow Jones, Microsoft Network, Yahoo!, and *The New York Times*. With its clean balance sheet, cash of $57 million, 65% gross margins, and yearly revenue growth of 140% in 1999, "this Internet stock comes close to being a real value play," says Simons, managing director of Digital Video Investments.

"And Hoover's seems ripe for acquisition," he adds. Its rival Market Guide, says Simons, was acquired in June by Multex.com, an online intermediary for the brokerage industry, at a price-to-sales ratio of 15. Hoover's is worth 7 to 10 times sales, he says. Hoover's largest stockholder: Time Warner, which owns 22%.

Analyst Jordan Rohan of Wit Capital thinks Hoover's is worth much more—with or without a takeout. "It's a tremendously undervalued stock that I think is worth 21," he argues. He says Hoover's is distinctly different from such rivals as MarketWatch.com. It has created profiles of a growing list of companies—currently 15,000—for investors, businessmen, and researchers. Based on better-than-expected third-quarter results, Rohan has raised his revenue estimates for the year ending Mar. 31, 2000, to $19 million, and for 2001 to $38.9 million, up from 1999's $9.2 million. Although Hoover's is still in the red, he sees it breaking even this year.

LOOK: SOFTWARE INSIDE A PEN

In the summer of 1994, Communication Intelligence (CICI) was delisted on the Nasdaq and subsequently filed for bankruptcy protection. Enter an investor group headed by Philip Sassower, which put up financing to save the company and pull it from bankruptcy. Today, Communication Intelligence (CI) has a hot new product: software integrated in a pen for use on palm-size electronic organizers, hand-held PCs, and wireless phones. The software is used to authenticate signatures in documents transmitted via the Web, in "smart phones" now in use in Europe, and for e-commerce transactions as a means of preventing online fraud and theft.

Since Sassower, now CI's chairman, installed new management, the company's stock has regained its trading rights on the Nasdaq. It jumped from just above 1 in August to 9⅞ on Jan. 3, before dipping below 7 on Feb. 15. And Sassower has been busy signing up licensing pacts with major companies, including Ericsson, Microsoft, Fujitsu, Hitachi, Mitsubishi, and National Semiconductor. Ericsson will use the pen-based software solution in its new R380 cellular phones that give access to the Internet.

Analyst Raymond Mucci of investment firm Baird Patrick, which owns a big stake but does not follow the company, thinks the stock is on the brink of breaking out because of the positive story that's unfolding about CI's technology. The company, which posted revenues of $4.6 million in the first three quarters, is expected to more than double 1999's sales of $4.5 million by yearend. CI expects to be in the black this year.

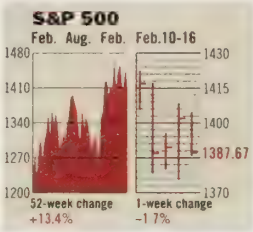
McDERMOTT: AN OIL-PATCH BONANZA?

McDermott International (MDR), the big oil-service company, has continued to lose ground in spite of the jump in crude oil prices: Its stock is down from 28 in early August to 11. James Marquez of Bayou Securities, which invests mainly in energy stocks, hasn't given up on McDermott because he expects its board to move toward: breaking up McDermott into three companies; settling a pending asbestos lawsuit against its Babcock & Wilcox unit; and scaling up its fuel-cell business through its contracts with the Defense Dept. and Energy Dept.

Marquez figures that the sum of the value of McDermott's parts is definitely worth more than its current stock price. Five months ago, McDermott bought the remaining 37% of oil-service firm J. Ray McDermott that it didn't yet own for $513 million. That puts the total value of Ray McDermott at $1.3 billion. The entire market value of the parent is $525 million, or 37% of the subsidiary's implied value five months ago. "That is a glaring disparity in the value of McDermott," says Marquez, and investors are getting for free Babcock and the BWX Technologies unit, which has developed fuel-cell technologies. He notes that shares of companies involved in fuel cells have been hot.

Figures of the Week

STOCKS



COMMENTARY

The Nasdaq composite index climbed to a record 4486 on Feb. 10, as investors snapped up computer shares. But the remainder of the week was mixed, with all major indexes seesawing. The Dow Jones industrial average climbed 198 points on Feb. 15, only to fall 157 points on Feb. 16. Interest-rate jitters fed the decline.

Data: Bloomberg Financial Markets

U.S. MARKETS	Feb. 16	% change Week	Year-to date	Last 12 months
Dow Jones Industrials	10,561.4	–1.3	–8.1	13.6
Nasdaq Composite	4427.6	1.5	8.8	91.4
Nasdaq 100	3998.0	0.7	7.8	104.6
S&P MidCap 400	445.4	0.2	0.2	23.6
S&P SmallCap 600	206.1	1.7	4.2	27.1
S&P SuperComposite 1500	293.7	–1.5	–4.9	13.0
SECTORS				
S&P/BARRA Growth	846.4	–2.3	–4.6	19.0
S&P/BARRA Value	570.1	–1.1	–6.6	3.4
S&P Basic Materials	118.4	0.6	–14.3	8.1
S&P Capital Goods	980.1	–0.6	–11.7	12.8
S&P Energy	802.5	6.7	–3.8	19.1
S&P Financials	118.5	–3.0	–10.9	–9.2
S&P REIT	72.0	–2.5	–2.2	–10.0
S&P Transportation	514.4	–3.8	–13.8	–23.1
S&P Utilities	248.8	0.4	9.5	5.0
GSTI Internet	658.6	–3.1	–7.6	77.7
Morgan Stanley Cyclical	494.7	0.2	–15.6	5.1
PSE Technology	1074.2	1.1	10.5	125.1

GLOBAL MARKETS	Feb. 16	% change Week	Year-to date	Last mo
S&P Euro Plus	1570.6	–1.5	1.2	2
London (FT-SE 100)	6147.4	–2.7	–11.3	
Frankfurt (DAX)	7490.3	–1.8	7.6	5
Tokyo (NIKKEI 225)	19,599.2	–1.4	3.5	3
Hong Kong (Hang Seng)	17,043.4	1.3	0.5	8
Toronto (TSE 300)	9428.6	1.9	12.1	4
Mexico City (IPC)	7600.7	1.8	6.6	8

FUNDAMENTALS	Feb. 15	Week ago	Ye ag
S&P 500 Dividend Yield	1.20%	1.17%	1.2
S&P 500 P/E Ratio (Trailing 12 mos.)	29.4	30.3	32
S&P 500 P/E Ratio (Next 12 mos.)*	23.5	24.1	23
First Call Earnings Revision*	0.18%	0.08%	–1.

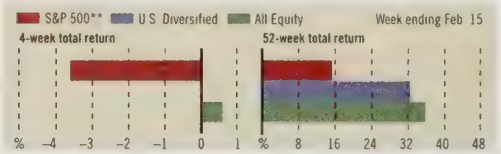
*First Call Corp.

TECHNICAL INDICATORS	Feb. 15	Week ago	Rea
S&P 500 200-day average	1361.3	1360.0	Posi
Stocks above 200-day average	26.0%	27.0%	Posi
Options: Put/call ratio	0.50	0.44	Nega
Insiders: Vickers Sell/buy ratio	0.71	0.71	Pos

BEST-PERFORMING GROUPS	Last month %		Last 12 months %
Defense Electronics	61.4	Instrumentation	228.1
Natural Gas	16.8	Defense Electronics	150.1
Communications Equip.	13.3	Communications Equip.	120.7
Semiconductors	10.4	Oil & Gas Drilling	113.9
Gold Mining	6.6	Semiconductors	104.7

WORST-PERFORMING GROUPS	Last month %		Last month
Shoes	–40.9	Pollution Control	–6
Metal & Glass Containers	–28.9	Toys	–5
Hospital Management	–26.8	Office Equip. & Supplies	–5
Hotels & Motels	–26.7	Tobacco	–5
Life Insurance	–24.4	Food Chains	–4

MUTUAL FUNDS



Data: Morningstar, Inc. **Vanguard 500 Index fund

EQUITY FUND CATEGORIES

Leaders Four-week total return	%	Laggards Four-week total return	%
Technology	11.4	Financial	–6.2
Health	9.9	Mid-cap Value	–5.9
Small-cap Growth	9.3	Large-cap Value	–5.5
Mid-cap Growth	7.5	Natural Resources	–4.4
Communications	6.3	Real Estate	–3.6

Leaders 52-week total return	%	Laggards 52-week total return	%
Technology	151.3	Financial	–7.4
Japan	104.1	Real Estate	–1.7
Diversified Pacific/Asia	98.2	Precious Metals	1.7
Small-cap Growth	91.3	Large-cap Value	2.4
Mid-cap Growth	89.4	Mid-cap Value	2.9

INTEREST RATES

KEY RATES	Feb. 16	Week ago	Year ago
MONEY MARKET FUNDS	5.39%	5.37%	4.57%
90-DAY TREASURY BILLS	5.72	5.66	4.52
1-YEAR TREASURY BILLS	6.18	6.20	4.69
10-YEAR TREASURY NOTES	6.54	6.56	4.98
30-YEAR TREASURY BONDS	6.26	6.32	5.32
30-YEAR FIXED MORTGAGE†	8.45	8.46	6.84

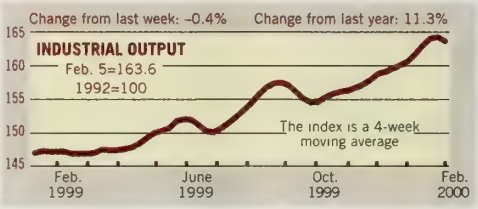
BLOOMBERG MUNI YIELD EQUIVALENT

Taxable equivalent yields on AAA-rated, tax-exempt municipal bonds, assuming a 31% federal tax rate

	10-yr. bond	30-yr. bo
GENERAL OBLIGATIONS	5.24%	5.94
TAXABLE EQUIVALENT	7.59	8.61
INSURED REVENUE BONDS	5.40	6.20
TAXABLE EQUIVALENT	7.83	8.99

†BanxQuote, Inc.

BW PRODUCTION INDEX



Information on each of the index components is at www.businessweek.com.
BW production index Copyright 2000 by The McGraw-Hill Companies

The production index tumbled in the week ed Feb. 5, after 18 weeks of continuous gr The unaveraged index also toppled, by 1 161.7, from 163.4 in the previous week. seasonal adjustment, winter storm condi particularly in the East, caused declines i freight traffic and coal output. Crude-oil ing was off by 3.5%, with capacity utiliz down to 84.4%. All other components were except for lumber production, which w 8.4%.

THE WEEK AHEAD

DURABLE GOODS ORDERS *Thursday, Feb. 24, 8:30 a.m.EST* ▶ Orders taken by durable goods manufacturers probably fell back by 1.3% in January, according to the median forecast of economists surveyed by Standard & Poor's MMS, a division of The McGraw-Hill Companies. Bookings had soared 5.5% in December, boosted by orders for capital goods including aircraft. As a result, the backlog of unfilled orders is heading back up into record territory. The high level of demand indicates that the capital-equipment sector is not yet slowing. That suggests that companies continue to invest in machinery to lift productivity in a labor-short economy. However, the data do not separate which orders are from overseas and which are from domestic customers.

GROSS DOMESTIC PRODUCT (REVISION) *Friday, Feb. 25, 8:30 a.m.EST* ▶ The Commerce Dept. will take a second look at the fourth-quarter economy. The S&P MMS median forecast is that real GDP growth will be revised up to a 6% annual rate, from the previous 5.8% pace. The economy grew 5.7% in the third quarter. Consumer spending at yearend was probably stronger than first thought, and inventory accumulation may be revised higher. The economists do not expect any change in the economy-wide inflation rate. It likely stayed at 2%.

EXISTING HOME SALES *Friday, Feb. 25, 10 a.m.EST* ▶ Existing homes probably sold at an annual rate of 5 million in January. If s that would be the lowest selling rate since May. However, despite rising mortgage rat housing demand remained solid in the sec ond half of 1999. Strong income growth and gains from stock portfolios are keepin homebuying strong. In December, 5.06 m lion homes were resold.

BusinessWeek ONLINE

For more investment data and the components of the production index, visit www.businessweek.com.

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The index gives the starting page for a story or feature with a significant reference to a company. Most subsidiaries are indexed under their own names. Companies listed only in tables are not included.

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TIME TO MOVE ON INTERNET PRIVACY

The hope that the Internet could police itself on privacy is quickly fading, as new invasive technology generates an ominous flood of intrusions. The California HealthCare Foundation recently reported that 16 out of 19 health-care Web sites violated their own privacy policies and allowed confidential medical data to be passed on to advertisers. Then DoubleClick Inc., the biggest Internet ad placement company, unleashed a storm of controversy by profiling thousands of Web surfers by name—without their explicit consent. The Federal Trade Commission is launching a probe into its data collection practices.

Public anger is driving privacy legislation in state capitals and Washington. Senator Robert G. Torricelli (D-N.J.) would ban "cookies," the digital ID tags that track a consumer's activity on the Web. He would also mandate that Web companies get permission before they collect personal data.

New technology makes it all too easy to capture intimate data from the Web. Banner ads can now grab any personal data placed on the page on which they appear. A person looking up "colon cancer" on a medical Web site, for example, may unwittingly have that fact transferred via a company's banner ad. It's downright creepy. And it makes promises of privacy by a Web site completely specious. E-Loan Inc., one of the largest online mortgage companies, vows to keep financial data from consumers secure. It runs a cookie-free site. But E-Loan's partners do have cookies that zoom into people's c puters and track them the instant people click onto their si

DoubleClick is trying to mute a chorus of criticism from Electronic Privacy Information Center and the Center Democracy & Technology for creating digital files that ide fy people by name. DoubleClick executives are also de dants in class-action suits alleging unlawful compiling of file individuals. In response, DoubleClick will now allow peopi opt out of this profiling, but they must first request it by g to DoubleClick's own site. And no one will be able to what is in their files. DoubleClick also is hiring a chief pri officer. A good first step, perhaps. Drkoop.com, a medical site, goes one further by insisting that advertisers on its agree not to attach any cookies to their ads at all.

The push for privacy protection is coming from abroa well. On Mar. 31 the European Union will apply its Data tection Directive to U.S. companies. The directive imp strict limits on the collection and use of personal data in th EU countries. It bars transmission of this personal dat countries that don't have parallel privacy safeguards.

Consent should be the key everywhere. If Internet com nies think they can violate basic individual rights as pa their business models, they are living in a fantasy land. U they guarantee privacy soon, the government will step in

BREAKING THE OIL CARTEL'S GRIP

Who's responsible? When it comes to finding fault for the jump in oil prices, from $10 a barrel in 1998 to the current $30, there's plenty of blame to throw around. But not, perhaps, in the obvious places.

The International Energy Agency says that as of December, world oil stocks were at their lowest yearend level in a decade. Today, world demand exceeds supply by about a million barrels a day, pushing prices higher. With the approach of the summer driving season, oil could hit $35 a barrel and gasoline $2 a gallon in the U.S.

Despite its reputation for energy profligacy, the U.S. is using energy more efficiently. In 1981, U.S. oil expenditures were 8.5% of gross domestic product. Today, they're down to only 3%, not much higher than Europe and Japan. Even the gasoholic SUVs get better mileage than cars did in the '70s.

What's really troubling is the growing industry concentration that may, in part, be driving the surge in oil prices. The recent merger wave in energy has contributed to capacity cutbacks and "just-in-time" inventory strategies designed to cut costs. With a smaller amount of oil in the pipeline and fewer companies left to compete, the industry has been less able to deal with any unexpected runup. Prices for home heating oil doubled for millions in the Northeast this winter, with de facto rationing occurring in some areas. The Federal Trade Commission is finally signaling a tougher titrust stance with its rejection of the BP Amoco–ARCO m er. But it is very little and very late.

The OPEC cartel is equally troubling. In an open, compe global economy, it simply has no legitimate place. OPEC was erated by the West as a geopolitical tool during the cold Saudi Arabia and the Gulf states warded off communism guaranteed a steady flow of oil to the U.S., albeit at a price at times. Today, they whisper about keeping Isl radicalism under control. Perhaps. But communism is gone the geopolitical incentive to tolerate a cartel is over.

Washington should work to break the cartel and a the free market to operate in oil. One step would b change the Strategic Petroleum Reserve from a rese used only in a national security emergency to one that c actively managed to counteract OPEC. Make it bigger use it. Until the requisite law is changed, the Energy should enter into swaps with oil companies to bring an million barrels into the market and help push prices d The U.S. should also lean on Mexico to boost produ and stop colluding with OPEC. The FTC, for its part, shou visit recent oil mergers to see if concentration has gon far. Cartels and monopolies have no role in a 21st ce global economy. Period.

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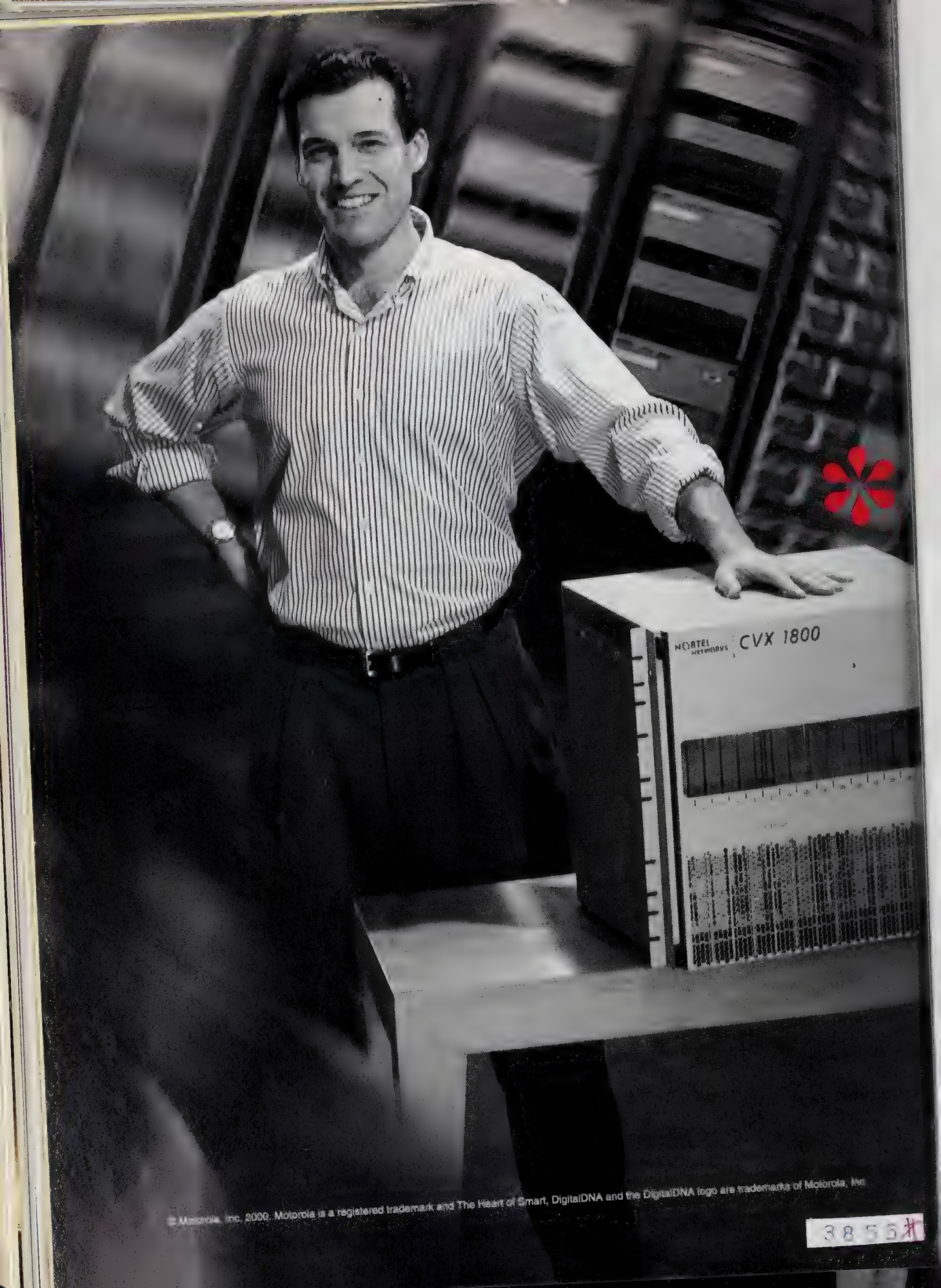

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